

አሃሻ 2 AYSHA II WIND PROJECT

ንፁህ ኢነርጂ ከተሻከ ህይወት
GREEN ENERGY
FOR BETTER LIFE



የኢትዮጵያ ኤሌክትሪክ ኃይል
ETHIOPIAN ELECTRIC POWER



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የኢትዮጵያ ኤሌክትሪክ ኃይል ኮርፖሬሽን አመሰራረት

በሀገራችን ኢትዮጵያ ኤሌክትሪክ ለመጀመሪያ ጊዜ አገልግሎት ላይ መዋል የጀመረው በ1890 ዓ.ም የጀርመን መንግሥት ለአጼ ምኒልክ በናፍታ የሚሠራ አነስተኛ ጀኔሬተር ማርክቱን ተከትሎ እንደሆነ ይታመናል።

ተቋሙ የአሁኑን መጠሪያ ከመያዙ በፊት በተለያዩ ስያሜዎች ሲጠራ ቆይቶ በ1948 ዓ.ም በቻርተር “የኢትዮጵያ ኤሌክትሪክ መብራትና ኃይል ባለሥልጣን” በሚል ህጋዊ ሰውነት ይዞ የተቋቋመ ሲሆን እንደገና በ1989 ዓ.ም “የኢትዮጵያ ኤሌክትሪክ ኃይል ኮርፖሬሽን” ተቋቋመ። ተብሎ በአዲስ እንዲደራጅ ተደርጓል።

በኋላም በ2006 ዓ.ም በአዲስ መልክ ወደ ሁለት አካላት ማለትም የኢትዮጵያ ኤሌክትሪክ ኃይል እና የኢትዮጵያ ኤሌክትሪክ አገልግሎት ተብሎ እንዲደራጅ ተደርጓል። የኢትዮጵያ ኤሌክትሪክ ኃይል በኢ.ፌ.ዲ.ሪ የሚኒስትሮች ምክር ቤት ደንብ ቁጥር 302/2006 በኋላ በተሻሻለው የኢ.ፌ.ዲ.ሪ የሚኒስትሮች ምክር ቤት ደንብ ቁጥር 381/2008 መሰረት የተቋቋመባቸው ዓላማዎች የሚከተሉት ናቸው።

1. ከብሔራዊ ግሪድ ጋር የተያያዙ የኤሌክትሪክ ኃይል ማመንጫዎች፣ ከ66 ኪሎቮልት በላይ የሆኑ ማስተላለፊያ መስመሮችና ማከፋፈያ ጣቢያዎች የግንባታ ሥራዎች የአዋጭነት ጥናት፣ የንድፍ እና የቅየሳ ሥራዎች ማከናወን፣ እንደአስፈላጊነቱ እነዚህ ሥራዎች በኮንሰልታንት ማሠራት፤
2. ከብሔራዊ ግሪድ ጋር የተያያዙ የኤሌክትሪክ ኃይል ማመንጫዎች፣ ከ66 ኪሎ ቮልት በላይ የሆኑ ማስተላለፊያ መስመሮች እና ማከፋፈያ ጣቢያዎች የግንባታና የማሻሻያ ሥራዎችን ማከናወን፤ እንደአስፈላጊነቱ እነዚህ ሥራዎች በሥራ ተቋራጭ ማሠራት፤
3. ከብሔራዊ ግሪድ ጋር የተያያዙ የኤሌክትሪክ ኃይል ማመንጫዎች ጣቢያዎችን፣ ከ66 ኪሎ ቮልት ኃይል በላይ የመሸከም አቅም ያላቸውን የኤሌክትሪክ ማስተላለፊያ መስመሮችን እና ማከፋፈያ ጣቢያዎችን ማስተዳደር፣ የኦፕሬሽን እና የጥገና ሥራዎችን ማከናወን፤
4. ከ66 ኪሎ ቮልት ደረጃ በላይ በሆኑ መስመሮች የኤሌክትሪክ ኃይልን በጅምላ መሸጥ እና መግዛት፤
5. ከ66 ኪሎ ቮልት በላይ የሆኑ የኃይል ማስተላለፊያ መስመሮችን ሊዝ ማድረግ፤
6. የሚሸጠውን የኤሌክትሪክ ኃይል በተመለከተ የታሪፍ ማሻሻያ ሀሳብ ማቅረብ፣ ሲፈቀድም ተግባራዊ ማድረግ፤
7. የገንዘብና ኢኮኖሚ ትብብር ሚኒስቴር የሚያወጣውን መመሪያና የፖሊሲ አቅጣጫ መሠረት በማድረግ ቦንድ መሸጥና በዋስትና ማስያዝ እና ከአገር ውስጥ፣ ከውጭ የገንዘብ ምንጮች ጋር የብድር ውል መደራደርና መፈራረም፤
8. ዓለማውን ከግብ ለማድረስ የሚረዱ ሌሎች ተዛማጅ የሆኑ ሥራዎችን ማካሄድ።





ESTABLISHMENT OF THE ETHIOPIAN ELECTRIC POWER

Ethiopian Electric Power Authority (EELPA) was established in 1955 (1948 E.C). It was reestablished as Ethiopian Electric Power Corporation (EEPCo) after restructuring in 1996 (1989 E.C). The corporation was reorganized in to two entities, Ethiopian Electric Power (EEP) and Ethiopian Electric Utility (EEU) in 2013 (2006 E.C). Ethiopian Electric Power (EEP) was established by the FDRE Council of Ministers Regulation No. 302/2013 and amended Regulation No. 381/2016 to implement the following objectives. Therefore, the following are the objectives for which the EEP is mandated in accordance with the amended Regulation of the Council of Ministers of FDRE No. 381/2016.

The purposes for which the Enterprise is established are:-

1. To undertake feasibility studies, design and survey of electricity generation in integrated national grid, construction of transmission lines and substation over 66 kilo volt level; to contract out such activities to consultants, as required;
2. To undertake construction and up grading of electricity generation in integrated national grid and, construction and up grading transmission lines and substation of over 66 kilo volt level; to contract out such works to contractors as required,
3. To administer, operate and maintain electricity generation in the integrated national grid, and transmission lines and substation of over 66 kilo volt level;
4. To sell and purchase bulk electric power on transmission lines above 66 kilo volt level;
5. To lease transmission lines above 66 kilo volt level;
6. To submit electricity tariff proposals with respect to power it sales and implement same upon approval;
7. To line with directives and policy guidelines issued by the Ministry of Finance and Economic Cooperation to sell and pledge bonds and to negotiate and sing loan agreements with local and international financial sources;
8. To undertake any other related activities necessary for the attainment of its purposes.”

GRID STRATEGIC PLAN



GOVERNANCE AND OPERATIONAL EXCELLENCE

- *Delivery of cost effective, reliable and customer centric services.*
- *Ensure affordability and Financial Viability.*
- *Provide effective own engineering, construction, and other services*
- *Ensure accountability, fairness, transparency and Independence*



RESILIENT AND RELIABLE INFRASTRUCTURE DEVELOPMENT

- *Secure Financial Sustainability.*
- *Improve Governance Practices.*
- *Increase Org. Capability and Processes Handling.*
- *Increase Generation Capacity, Grid Access & Regional Connectivity.*
- *Increase Own Construction & Engineering Capability.*



INNOVATION AND DIGITAL TRANSFORMATION

- *Adopt state-of-the-art technologies; ensure cost effectiveness, efficiency and competitiveness.*
- *Ensure modernization of existing Power Plant, Grid management system, and automated business process and customer experience, through efficient & secure enterprise IT infrastructure.*
- *Ensure the safety, availability, integrity, and confidentiality of power grid infrastructure and systems.*
- *Look for new innovative businesses to unlock new revenue streams supported by new technologies, i.e., Utility telecom business, IT Solutions, tourism etc.*



DEVELOPMENT OF HUMAN CAPITAL

- *Build competent human capital with synergy, having the right professional diversity.*
- *Build high performing team with strong corporate culture.*
- *Ensure execution and delivery of customer centric services through improved employee experience and excellence.*
- *Provide human capital development services through well-equipped center of excellence.*

የኢትዮጵያ ኢሌክትሪክ ኃይል ስራ አመራር ቦርድ አባላት EEP BOARD OF DIRECTORS



H.E. Abreham Belay (Phd)
Chairman of the Board of Management

Minister of Defense, He Spent more than two decades serving the nation, he was Minister of Innovation and Technology, CEO of EEP and Director of the Cyber Technology Engineering Institute at the Information Network Security Agency. He is electrical Engineer by Profession.

Statement from the Board Chairman

Ethiopians have honored the vision, dreams, hopes, aspirations and sacrifices of their forefathers and mothers with their blood, sweat, tears and prayers! We will prove it again and again that we are the son and daughters of our forefathers and mothers in all fronts, most notably on the power sector which is the enabler to a meaningful development. GERD is our gateway to our prosperity providing energy security along with the future projects in the pipeline.



H.E. Amb. Girma Biru (MBA)
Member of the Board of Management, Macroeconomic advisor to Prime Minister of Ethiopia

He spent more than three decades serving the nation, he was ambassador to the United States for five years, Minister of Trade & Industry as well as Economic Development & Cooperation. He is economist by Profession.



H.E. Aisha Mohammed (MBA)
Member of the Board of Management

Minister of Irrigation and Low lands. She spent two decades serving the nation, she was Minister of Construction and Urban Development, Minister of Tourism and Culture, Minister of Defense. She is civil engineer by profession.



H.E. Eyob Tekalign (Phd)
Member of the Board of Management, State Minister of Finance

Spent two decades serving the nation, He was Minister of the National planning commission and in various responsibilities within leading public, private, supranational, multinational, and academic institutions. He is economist by profession.



Mr. Melaku Alebel
Member of the board of management, Minister of Industry of Ethiopia.

He was Vice president and bureau head of industry and investment, Amhara Regional State, Investment Commissioner of Amhara Regional State Investment Commission, and spent Various leadership roles in Amhara regional state and Federal Government.



Mr. Ashebir Balcha
Chief Executive Officer, CEO

He spent



Mr. Teshome Belay (MA)
Member of the Board of Management

Representative of the labor union, He spent around two decades serving the nation, He was Development facilitator at Agri Service Ethiopian and Senior Reporter at Ethiopian news agency. His profession is Communication.



H.E. Fikadu Digafe (MA)
Member of the Board of Management

Vice Governor and chief economist of the National Bank of Ethiopia. He spent more than two decades serving the nation and contributed to macroeconomic policy of Ethiopia. He is economist by profession.



Mrs. Mahlet Niguss (BA)
Member of the Board of Management

Representative of the labor union, She spent around two decades serving the company, She was MIS officer and security monitoring and response expert. She is IT professional.



Mrs. Woineshet Abebe (BA)
Board Secretary

She spent more than three decades serving the nation, she was South Addis Ababa sales and marketing monitoring manager and Executive Assistant. Marketing by profession.

የሥራ አመራር ቦርድ ሰብሳቢ መልዕክት



አብርሃም በላይ (ፒኤች.ዲ.)
የኢትዮጵያ ኤሌክትሪክ ኃይል የሥራ አመራር ቦርድ ሰብሳቢ

ሀገራችን ኢትዮጵያ ከንፋስ፣ ከፀሐይ፣ ከውሃ እና የተፈጥሮ ጋዝን ከመሳሰሉ ታዳሽ የኃይል አማራጮች ኃይል ለማመንጨት የሚያስችል እምቅ የተፈጥሮ ሀብት ያላት የታደሰች ሀገር ናት። ይህን የተፈጥሮ ሀብቷን ለመጠቀም የተለያዩ ጥረቶችን በተለያዩ ጊዜያት ብታደርግም አሁን እንዳለንበት ዘመን ብዙ ሰርታ፣ በዚያው ልክ ብዙ ደግሞ ተሳክቶላት አታውቅም። በቅርቡ አስመርቀን ለአገልግሎት ያበቃነውን የታላቁ የኢትዮጵያ ህዳሴ ግድብን ጨምሮ ወደ 6 ሺህ ሜጋ ዋት ኃይል ማመንጨት የቻልነው ባለፉት ሰባት ዓመታት ውስጥ ብቻ ነው።

በሶማሌ ክልል ሲቲ ዞን አይሻ ከተማ አቅራቢያ ተገንብቶ ለምርቃት ዝግጁ የተደረገው የአይሻ 2 የንፋስ ኃይል ፕሮጀክት ሀገራችን ኢትዮጵያ በታዳሽ ኃይል ልማት ላይ በታላቅ ትጋት፣ በተስፋ እና በውጤታማነት እየሰራች መሆኗን የሚያሳይ አንዱ ፕሮጀክት ነው።

ፕሮጀክቱ በመጀመሪያው ምዕራፍ 80 ሜጋ ዋት ኃይል ወደ ብሔራዊ ግሪድ በማስገባት አገልግሎት መስጠት መጀመሩ፤ የኃይል ልማት ሥራችን ምን ያህል ውጤት እያመጣ እንደሆነ ያመለክታል። የዚሁ ፕሮጀክት አካል የሆነው በሁለተኛው ምዕራፍ የሚከናወነው ሥራም በቀጣይ 40 ሜጋ ዋት ለማመንጨት የሚያስችሉ የንፋስ ተርባይንና ጀነሬተሮች ተሽካሚ ማማ ወይም ታወር የመሰረት ሥራ መጠናቀቁ እንዲሁም የማማዎች፣ ተርባይኖች እና ጀነሬተሮች ፍብረት እየተፋጠነ መሆኑ ቀጣይ ሥራዎች በመልካም ጅማሮ ላይ መሆናቸውን ያሳያል።

ፕሮጀክቱ የሚገኝበት አይሻ ከተማ ለክልሉ እና ለሀገራችን ኢኮኖሚያዊና ማህበራዊ ልማት ትርጉም ያለው ሥራ እየተሰራበት እንደሆነ እናምናለን። በአንድ በኩል ክልሉ ከብዙ ዘመናት በኋላ ከሀገሪቱ ሀብት በፍትሐዊ መንገድ መጠቀም መጀመሩን የሚያሳይ በሌላ በኩል የጀመርነው የብልጽግና ጉዞ ሁሉን አቀፍ ልማት ማረጋገጥ እንደሚያስችል ተግባራዊ ምላሽ የሰጠንበት ነው።

የአይሻ-2 የንፋስ ኃይል ፕሮጀክት



ይህ ፕሮጀክት በዚህ ቦታ ላይ ተጀምሮ ለምርቃት መብቃቱ ለራሱ ለአይሻ 2 ፕሮጀክት ብቻ ሳይሆን ከዚህ ቀጥሎ ሊገነቡ ሊታቀዱት የአይሻ 1 እና 3 ፕሮጀክቶች መሠረት የጣለ ዐይን ገላጭ ፕሮጀክት ተደርጎ የሚወሰድ ነው። ከዚህ በተጨማሪም በጅቡቲ እና በሶማሊ ላንድ ድንበር አቅራቢያ የሚገኝ መሆኑ ሀገራችን ኢትዮጵያ ከጎረቤቶቿ ጋር በኃይል መሰረተ ልማቶች ለመተሳሰር የጀመረችውን ጉዞ የሚያፋጥን እና በምስራቅ ኢትዮጵያ ያለውን ግሪድ የማጠናከር ጉልህ ሚና እንደሚጫወት ይታመናል።

የኢትዮጵያ ኤሌክትሪክ ኃይል የሥራ አመራር ቦርድ የተቋሙን ሁለንተናዊ እንቅስቃሴዎች በቅርበት በመከታተል ይህን ፕሮጀክት ብቻ ሳይሆን ሌሎች የተጀመሩ ፕሮጀክቶችም በተያዘላቸው አልያም በተከለሰ ዕቅዳቸው መሰረት እንዲጠናቀቁ አስፈላጊውን ድጋፍ ሲደርግ ቆይቷል። ይህን የክትትል እና ድጋፍ ሥርዓት አጠናክሮ የሚቀጥል ይሆናል።

የአይሻ 2 እና የሌሎች ፕሮጀክቶች ተጠናቆ ለምርቃት ዝግጁ መሆን የሥራ አመራር ቦርዱ እና የተቋሙ ማኔጅመንት የሥራ ምስክር በመሆኑ በየደረጃው ያሉ ሁሉንም አመራሮች እና ሠራተኞች እንዲሁም የኢትዮጵያን ህዝብ በዚህ አጋጣሚ ማመስገን እወዳለሁ።

የኢትዮጵያ ኤሌክትሪክ ኃይል እንደ አንድ የኢኮኖሚና የኃይል መሠረተ ልማት ተቋም፣ ኢትዮጵያን በኃይል ልማት ጉዞውን አጠናክሮ እንደሚያስቀጥል ታላቅ እምነት አለን።

ኢትዮጵያችን ታብራለች!

አብርሃም በላይ (ፒኤች.ዲ.)

የኢትዮጵያ ኤሌክትሪክ ኃይል የሥራ አመራር ቦርድ ሰብሳቢ

MESSAGE FROM THE BOARD CHAIRMAN OF EEP



Abraham Belay (PhD)
Chairman of the Board of Management, EEP

Ethiopia is a nation richly endowed with immense potential natural resources, suitable for generating power from a diverse array of renewable sources, including wind, solar, hydro, and natural gas. While our country has historically pursued various initiatives to harness these resources, the scale of success and diligence achieved in the current era is unprecedented. We have succeeded in generating approximately 6,000 Megawatts of power over the past seven years alone, a figure that includes the recently inaugurated Grand Ethiopian Renaissance Dam (GERD).

The completion of the Aysha-2 Wind Farm Project, constructed near Aysha town in the Siti Zone of the Somali Regional State and now prepared for inauguration, serves as a prime testament to Ethiopia's dedicated, hopeful, and effective pursuit of renewable energy development.

The project has already begun commercial operation, injecting 80 Megawatts of power into the national grid during its initial phase—a clear indication of the substantial results yielded by our power development endeavors. Furthermore, the preparatory work for the second phase, which will generate an additional 40 Megawatts, is advancing strongly, marked by the completion of foundation work for the turbine towers and the accelerated fabrication of the towers, turbines, and generators.

We consider the development initiatives realized at the project site in Aysha town to be profoundly significant for the economic and social progress of

AYSHA-2 WIND FARM PROJECT

THE FIRST PHASE

80^{MW}

THE SECOND PHASE

40^{MW}

both the region and the nation. This project affirms, on one hand, that the region is, after many years, finally beginning to benefit equitably from the country's resources. On the other hand, it provides tangible evidence that our collective journey toward prosperity is capable of guaranteeing comprehensive development for all.

The successful initiation and impending inauguration of this project at this strategic location not only holds immense value for Aysha-2 itself but is also regarded as a foundational, trailblazing endeavor for the subsequent Aysha-1 and Aysha-3 projects. Moreover, its proximity to the borders of Djibouti and Somali-land is anticipated to expedite Ethiopia's efforts to achieve cross-border energy infrastructure integration with its neighbors, while concurrently playing a crucial role in stabilizing the grid across Eastern Ethiopia.

The Board of Management of Ethiopian Electric Power has closely overseen the institution's wide-ranging operations, providing the necessary support to ensure that this project, alongside all other ongoing projects, adheres to its original or revised completion schedule. This robust system of monitoring and support will be continually reinforced.

The readiness of Aysha-2 and other critical projects for commissioning stands as a direct testament to the dedication of the Board of Management and the commitment of the institution's administration. I wish to take this opportunity to extend my sincere gratitude to all leaders and employees at every level, as well as the entire population of Ethiopia. As a vital institution for national economic and energy infrastructure, Ethiopian Electric Power holds an unwavering conviction that it will decisively strengthen and advance Ethiopia's trajectory in power development.

Ethiopia shall shine!

Abraham Belay (PhD)

Chairman of the Board of Management, Ethiopian Electric Power



የዋና ሥራ አስፈጻሚ መልዕክት



አሸብር ባልቻ (ኢንጂነር)
የኢትዮጵያ ኤሌክትሪክ ኃይል ዋና ሥራ አስፈጻሚ

የኢትዮጵያውያን የአንድነት አርማ የሆነውን ታላቁ የኢትዮጵያ ህዳሴ ግድብን አጠናቀን ሪቫን በቆረጥን ማግስት የአይሻ 2 የንፋስ ኃይል ማመንጫ ፕሮጀክትን አጠናቀን ሌላ የምረቃ ሪቫን ለመቆረጥ በመብቃታችን እንኳን ደስ አላችሁ! እንኳን ደስ አለን! ለማለት እወዳለሁ።

የፕሮጀክቱ መጠናቀቅ የጀመርነውን ልማት ከግብ ለማድረስ ተግተን የምንሰራ የልማት አርባኞች መሆናችንን ማሳያ ነው።

ተቋማችን የኃይል ስብጥሩን በማስፋት ተደራሽነትን ለማሳደግ የተሰጠውን ተልዕኮ ለማሳካት በኃይል ልማት ዘርፉ ላይ የተለያዩ ሥራዎችን በማከናወን ላይ ይገኛል። የአይሻ 2 የንፋስ ኃይል ማመንጫ ፕሮጀክት ተቋሙ እያከናወናቸው ከሚገኙ የኃይል መሠረተ ልማት ሥራዎች አንዱ ነው።

የፕሮጀክቱ መጠናቀቅ ከንፋስ የምናገኘውን ኃይል መጠን ከማሳደግ ባሻገር ኢትዮጵያ እየተከተለችው ላለው የአረንጓዴ ልማት ፖሊሲ ትልቅ ድርሻ ያበረክታል። ኢትዮጵያ የኤሌክትሪክ ፍላጎቷን የምታሟላው አካባቢን ከማይበክሉ፣ ንፁህና ታዳሽ የኃይል አማራጮች ቢሆንም በወቅታዊ የአየር ሁኔታ ላይ ጥገኛ በመሆናቸው ምክንያት ተፈጥሮ ፊቷን በምታዘርበትና በተለይ የግድቦች የውሃ መጠን በሚቀንስበት ወቅት በኤሌክትሪክ አቅርቦት ላይ ከፍተኛ ተፅዕኖ እንደሚያሳድር የቅርብ ጊዜ ትውስታችን ነው።

በመሆኑም ተቋማችን ከቅርብ ጊዜ ወዲህ የኃይል ስብጥሩን ለማመጣጠን በውሃ ላይ በከፍተኛ ደረጃ ጥገኛ የነበረውን ኤሌክትሪክ የማምረት ሂደት በሌሎች ታዳሽ የኃይል አማራጮች ላይ ለማስተካከል ትኩረት ሰጥቶ በመስራት ላይ ይገኛል። የግል አልሚዎችም እንዲሳተፉ የሚያደርግ ምቹ የፖሊሲ ማዕቀፍ ተዘጋጅቶ ወደ ሥራ ተገብቷል።

የአይሻ 2 የንፋስ ኃይል ማመንጫ ፕሮጀክት የምዕራፍ አንድ ግንባታ ሥራ መጠናቀቅም ተቋሙ አስተማማኝ፣

የአይሻ-2 የንፋስ ኃይል ፕሮጀክት



ዘላቂና የማይበገር አረንጓዴ ኢነርጂ ለመገንባት እያደረገ ላለው ጥረት አንዱ ማሳያ ነው።

ቀደም ሲል በአዳማ አንድ እና ሁለት እንዲሁም በአሸንዳ የንፋስ ኃይል ማመንጫ ጣቢያዎች በድምሩ 324 ሜጋ ዋት የኤሌክትሪክ ኃይል የማምረት አቅም የፈጠርን ሲሆን በአይሻ ሁለት የመጀመሪያው ምዕራፍ ተጨማሪ 80 ሜጋ ዋት የማመንጫ አቅም ያለው ጣቢያ በመገንባት ለምርቃት ዝግጁ አድርገናል። ይህም የአሰላ የንፋስ ኃይል ማመንጫ ፕሮጀክትን ጨምሮ አሁን ያለንን ከንፋስ ኃይል የማመንጫ አቅም ወደ 504 ሜጋ ዋት ከፍ ያደርገዋል።

ለምርቃት ዝግጁ ካደረግነው የአይሻ 2 የንፋስ ኃይል ማመንጫ ፕሮጀክት በተጨማሪ በቅርቡ ሌላ የምርቃት ሪቫን የምንቆርጥበት የአሰላ የንፋስ ኃይል ማመንጫ እና ሌሎች በጅምር ላይ ያሉት ፕሮጀክቶች በሁሉም የሀገራችን ክፍሎች ፍትሐዊ የኃይል መሰረተ ልማትን ተደራሽ ለማረጋገጥ እና ቀጣናዊ የኃይል ትስስርን ለማሳደግ የተጀመረውን ጥረት አንድ እርምጃ የሚያራምዱ መሆናቸው ይታመናል።

በመሆኑም በፅናትና በጥልቅ ሀገራዊ ስሜት ገንብተን ባጠናቀቅነው ታላቁ የኢትዮጵያ ህዳሴ ግድብ እና ዛሬ ባስመረቅነው የአይሻ 2 የንፋስ ኃይል ማመንጫ እንዲሁም በሌሎች ፕሮጀክቶቻችን ላይ በቅንነትና በታማኝነት ለሰራችሁ እና እየሰራችሁ ለምትገኙ የተቋማችን ሠራተኞች፣ አመራሮች፣ ሥራ ተቋራጮች እና ባለድርሻ አካላት ከፍ ያለ ምስጋና አቀርባለሁ።

እግዚአብሔር ኢትዮጵያን ይባርክ!

አሸብር ባልቻ (ኢንጂነር)

የኢትዮጵያ ኤሌክትሪክ ኃይል ዋና ሥራ አስፈጻሚ

MESSAGE FROM THE CHIEF EXECUTIVE OFFICER OF EEP



Congratulations to all of you, and congratulations to us! We have successfully completed the Grand Ethiopian Renaissance Dam, the symbol of Ethiopian unity, and immediately following that monumental ribbon-cutting, we have now achieved another milestone with the completion of the Aysha-2 Wind Farm Project, readying us for yet another inauguration.

The successful completion of this project is a clear affirmation that we are development patriots who work with unwavering dedication to realize the national development goals we have set forth.

Our institution is strategically engaged in diverse power development activities to fulfill its core mandate: expanding the national energy mix and enhancing accessibility across the country. The Aysha-2 Wind Farm Project stands as a pivotal initiative within the array of energy infrastructure projects being executed by Ethiopian Electric Power.

The commissioning of Aysha-2 not only expands our wind power generation capacity but also makes a significant contribution to Ethiopia's overarching Green Development Policy. While Ethiopia predominantly meets its electricity demand through clean, non-polluting renewable sources, recent experience reminds us that our heavy reliance on hydro-power makes us acutely vulnerable to meteorological fluctuations. Specifically, when reservoir levels drop during dry periods, the impact on reliable electricity supply is severe.

Previous Capacity

*Adama-1, Adama-2, and Ashegoda
combined capacity of*

324^{MW}

New Capacity

*Aysha-2's 80 MW and the upcoming Assela project,
EEP's total installed wind power capacity will reach*

504^{MW}

Consequently, our institution has been intensely focused on diversifying our electricity generation process which was historically dependent on water by strategically shifting focus to other renewable energy options to better balance the national power mix. To facilitate this, a favorable policy framework has been prepared and implemented to encourage robust participation from private developers in this crucial sector.

The completion of Phase one of the Aysha-2 Wind Farm Project is thus a tangible demonstration of our steadfast commitment to building a reliable, sustainable, and resilient Green Energy infrastructure.

Previously, we established a combined electricity generation capacity of **324 Megawatts** through the **Adama-1**, **Adama-2**, and **Ashegoda** Wind Farms. With the commissioning of the first phase of Aysha-2, we have added another **80 Megawatts** of generating capacity. This remarkable achievement, which includes the upcoming **Assela** Wind Farm Project, will elevate our total installed wind power generation capacity to 504 Megawatts.

Beyond the Aysha-2 Wind Farm Project now prepared for inauguration, we firmly believe that the **Assela** Wind Farm Project (slated for commissioning soon) and other ongoing developments will decisively advance our efforts. These projects are instrumental in ensuring equitable access to power infrastructure across all regions of the country and in strengthening regional energy interconnection.

Therefore, I extend my profound gratitude to our committed and trustworthy employees, management, contractors, and all stakeholders who worked with integrity and deep national spirit to build and complete the Grand Ethiopian Renaissance Dam, the Aysha-2 Wind Farm Project inaugurated today, and all our other projects currently underway.

May God bless Ethiopia!

Asheber Balcha (Engineer)

Chairman of the Board of Management, Ethiopian Electric Power

የአይሻ ሁለት የንፋስ ኃይል ማመንጫ ፕሮጀክት ተቋራጭ ሥራ አስኪያጅ መልዕክት

እኛ የዶንግፋንግ ኤሌክትሪክ ኢንተርናሽናል ኮረፖሬሽን የአይሻ ሁለት የንፋስ ኃይል ማመንጫ ፕሮጀክትን ለመምራት የኢንጂነሪንግ ፕሮጀክቶችን እና ኮንስትራክሽን (ኢፒሲ) ተቋራጭ በመሆን በመሥራታችን ታላቅ ደስታ ይሰማናል።

የአይሻ ንፋስ ኃይል ማመንጫ ፕሮጀክቱ መጠናቀቅ በድርቅ ወቅት በውሃ ማመንጫዎች ላይ የሚከሰተውን ኃይል የማመንጫት አቅም ማነስ በመተካት የተረጋጋ የኃይል አቅርቦትን በማረጋገጥ ለሀገሪቱ ኢኮኖሚ እድገት በተለይ የኢትዮጵያውያን የንግድ መስመር ጋር በተገናኘ ለአዲስ አበባ ጀቡቲ የባቡር መስመር እና ለድሬደዋ ኢንዱስትሪያል ፓርክ በቂ ኃይል ለማቅረብ የጎላ ሚና ይኖረዋል።

በተጨማሪም ፕሮጀክቱ መጠናቀቁ ኢትዮጵያ ለጀቡቲ የምታቀርበውን የኃይል ሽያጭ ለማሳደግ እንዲሁም በታዳሽ ኃይል ዘርፍ ላይ ትኩረት ሰጥቶ በመሥራት የቀጠናውን የኢኮኖሚ እድገትን በማጎዳደር የራሱን አሻራ ያሳርፋል።

ዶንግፋንግ ኤሌክትሪክ ኢንተርናሽናል ኮረፖሬሽን ከኢትዮጵያ ኤሌክትሪክ ኃይል ጋር ጠንካራ እና የተረጋጋ አጋርነት በመመስረት ሌሎች የኃይል ፕሮጀክቶች ላይ በመሥራት እያደገ ለመጣው የኢትዮጵያ የኃይል ዘርፍ ከፍተኛ ድረሻ ለመወጣት የረጅም ጊዜ ዕቅድ እንዳለው እገልጻለሁ።

ዶንግ ዚሊያንግ

በዶንግፋንግ ኤሌክትሪክ ኢንተርናሽናል ኮረፖሬሽን የአይሻ ሁለት የንፋስ ኃይል ማመንጫ ፕሮጀክት ተቋራጭ ሥራ አስኪያጅ

MESSAGE FROM AYSHA-II WIND POWER PROJECT CONTRACTOR'S PROJECT MANAGER

We, Dongfang Electric International Corporation (DEC), are delighted to act as the EPC Contractor for the Aysha II Wind Power Project. Upon completion, the project will deliver a stable power supply to underpin the development of the Ethiopia-Djibouti Economic Corridor—encompassing key infrastructure including the Addis Ababa-Djibouti Railway and Dire Dawa Industrial Park—while effectively mitigating the decline in hydropower output during the dry season. Furthermore, it will enhance Ethiopia's capacity to export electricity to Djibouti, thereby fueling regional economic growth and injecting new vitality into Ethiopia's green energy sector. DEC looks forward to forging a long-term, stable partnership with EEP to jointly develop more power projects and make greater contributions to Ethiopia's energy development.

Mr Dong Ziliang

Contractor's Project Manager, Aysha-II Wind Power Project, Renewable Energy Division, Dongfang Electric International Corporation





የዶንግፋንግ ኤሌክትሪክ ኢንተርናሽናል ኮርፖሬሽን የቦርድ ሰብሳቢ መልዕክት

የአይሻ II የንፋስ ኃይል ማመንጫ ፕሮጀክት የመጀመሪያ ምዕራፍ በተሳካ ሁኔታ ተጠናቆ ሥራ የጀመረበትን ታሪካዊ ቀን አስመልክቶ በዶንግፋንግ ኤሌክትሪክ ኢንተርናሽናል ኮርፖሬሽን ስም ለኢትዮጵያ መንግሥት፣ ለኢትዮጵያ ኤሌክትሪክ ኃይል፣ በፕሮጀክት ሥራው ተሳታፊ ለሆኑ አካላት እና ለአካባቢው ማህበረሰብ ላደረጉት ጠንካራ ድጋፍ ልባዊ ምስጋናዬን አቀርባለሁ።

በኢትዮጵያ በሶማሌ ክልል የተገነባው የአይሻ II የንፋስ ኃይል ማመንጫ ፕሮጀክት የቤልት እና ሮድ ኢንፎራሽን ፕሮጀክትን ወደ ፊት ለማራመድ እና የቻይና-አፍሪካን የኢነርጂ ትብብር ለማጠናከር በዶንግፋንግ ኤሌክትሪክ ኢንተርናሽናል ኮርፖሬሽን ከተከናወኑት አብይት ፕሮጀክቶች አንዱ ነው። የፕሮጀክቱ የኢንጂነሪንግ፣ ፕሮኪዩርመንት እና ኮንስትራክሽን (ኢፒሲ) ተቋራጭ የሆነው ኮርፖሬሽኖችን ሁልጊዜም “ታማኝነት፣ ፈጠራ፣ ትብብር እና የጋራ ተጠቃሚነት” የሚለውን መርህ አጥብቆ ይከተላል።

ከፕሮጀክቱ ባለቤት ከኢትዮጵያ ኤሌክትሪክ ኃይል ጋር በቅርበት በመስራት፣ መልክዓ ምድራዊ እና የግንባታ ውስንነቶች የተመለከቱ በርካታ ተግዳሮቶችን በጋራ በመወጣት እንዲሁም ዘመናዊ የንፋስ ኃይል ቴክኖሎጂን ከአካባቢው የልማት ፍላጎቶች ጋር በማቀናጀት በሶማሌ ክልል ንጹህ ኃይል ማቅረብ ችለናል።

የዚህ ፕሮጀክት በተሳካ ሁኔታ ሥራ መጀመር ለአካባቢው የተረጋጋ እና አስተማማኝ ታዳሽ የኤሌክትሪክ ኃይል ከመስጠት ባለፈ፣ ለቻይና እና ለአፍሪካ ወዳጅነት ጠንካራ ድልድይ እንደሚሆን አንጠራጠርም። በቀጣይም ዶንግፋንግ ኤሌክትሪክ ኢንተርናሽናል ኮርፖሬሽን የኢነርጂ አውታሮችን ጠንካራ ትስስር ለመፍጠር እንደመሳሪያ በመጠቀም፣ ከኢትዮጵያ ኤሌክትሪክ ኃይል ጋር ያለውን ስትራቴጂካዊ ትብብር ለማጠናከር ይሰራል።

በተጨማሪም የኢትዮጵያን የኢነርጂ መዋቅር ለማሻሻል እና ዘላቂ ልማትን ለመደገፍ ከፍተኛ ጥራት ያላቸውን ምርቶች፣ ቴክኖሎጂዎች እና አገልግሎቶችን በተከታታይ በማቅረብ ለቻይና-አፍሪካ የጋራ ተጠቃሚነት ትብብር የበለጠ ብሩህ ምዕራፍ እንደምንሰራ ማረጋገጥ እወዳለሁ።

ፕሮጀክቱ የተሳካ የኃይል ማመንጫት ሂደት እና ህዝቡን የበለጠ እንዲጠቅም እመኛለሁ! ትብብራችን ለዘላቂ ወዳጅነታችን አዲስ ምዕራፍ እንደሚከፍት አልጠራጠርም።

ሚስተር ቼን ኪያንግ

የዶንግፋንግ ኤሌክትሪክ ኢንተርናሽናል ኮርፖሬሽን የቦርድ ሰብሳቢ



MESSAGE FROM THE CHAIRMAN OF DONGFANG ELECTRIC INTERNATIONAL CORPORATION

On the significant occasion of the successful commissioning of the 1st phase of Aysha II Wind Power Project, on behalf of Dongfang Electric International Corporation(DEC), I extend my sincere gratitude to the Ethiopian government, Ethiopian Electric Power, all participating units, and local communities for their long-term strong support!

Rooted in the vibrant land of Somali Region, Ethiopia, the Aysha II Wind Power Project is a landmark initiative of DEC in advancing the Belt and Road Initiative and deepening China-Africa energy cooperation. As the EPC contractor, we have always adhered to the philosophy of “Integrity, Innovation, Cooperation, and Win-Win.” Working closely with the project owner Ethiopian Electric Power, we have overcome numerous challenges such as geographical and construction constraints, integrating advanced wind power technology with local development needs to bring clean energy to Somali Region.

The successful commissioning of the project not only provides stable and reliable green power for the local area but also builds a solid bridge for China-Africa friendship. In the future, DEC will continue to take energy equipment as the link, deepen strategic cooperation with Ethiopian Electric Power, and continuously deliver high-quality products, technologies, and services to support Ethiopia’s energy structure upgrading and sustainable development, writing a more brilliant chapter for China-Africa mutually beneficial cooperation!

Wish the project a smooth power generation and its benefits reach the people! May our cooperation write a new chapter and our friendship endure the test of time!

Mr. Chen Qiang

Chairman of Dongfang Electric International Corporation



የጽንግፋንግ ኤሌክትሪክ ኢንተርናሽናል ኮርፖሬሽን ዋና ሥራ አስኪያጅ መልዕክት

በዛሬው ዕለት የአይሻ II የንፋስ ኃይል ማመንጫ ፕሮጀክት ሥራ መጀመሩን በጋራ ለማየት በቅተናል። ይህ ወሳኝ ምዕራፍ የሁሉም ባለድርሻ አካላት የጋራ ጥበብና ጥረት ማሳያ ከመሆኑም በላይ ለታዳሻ ኃይል ልማት ያለንን የጋራ እሳቤ የሚያሳይ ዐብይ ምልክት ነው።

የኢትዮጵያ ኤሌክትሪክ ኃይል ላደረገልን እምነትና ድጋፍ፣ ሁሉም የፕሮጀክቱ ግንባታ ሠራተኞች ላደረጉት የላቀ አስተዋጾ እንዲሁም የአካባቢው አስተዳደርና ሕዝብ ላደረጉልን ጠንካራ እገዛ የጽንግፋንግ ኤሌክትሪክ ኢንተርናሽናል ኮርፖሬሽንን በመወከል ከልብ የመነጨ ምስጋናዬን አቀርባለሁ።

ኮርፖሬሽኖችን የፕሮጀክቱ የኢንጅነሪንግ፣ ፕሮኪዩርመንት እና ኮንስትራክሽን (ኢፒሲ) ሥራ ተቋራጭ እንደመሆኑ “ቅድሚያ ለደህንነት፣ የላቀ ጥራት” የሚለውን መርህ ዋና የአሠራር መመሪያው በማድረግ ተግባራዊነትን አሳይተናል።

ከፕሮጀክቱ ዲዛይን ጀምሮ የመሳሪያ አቅርቦት እስከ ግንባታና ሙከራ ሥራ ድረስ፣ እያንዳንዱ የንፋስ ተርባይን የተረጋጋና ውጤታማ አሠራር እንዲኖረው ለማድረግ በአተገባበሩ ሁሉ አስፈላጊ የደረጃ መስፈርቶችን በማክበር ሥራችንን አከናውናል።

በሶማሌ ክልል ቀን ከሌት ከኢትዮጵያ ኤሌክትሪክ ኃይል የሥራ ባልደረቦች ጋር በመተባበር፣ ተከታታይ የቴክኒክ ችግሮችን በመፍታት እና “የቻይናና አፍሪካ ትብብር እንደ አንድ ቤተሰብ” የሚለውን ጥልቅ የወዳጅነት ዕሳቤ በተግባር ለማሳየት ችለናል።

ፕሮጀክቱ በስኬት ሥራ መጀመር መቻሉ በቻይናና አፍሪካ የኃይል ትብብር ማዕከል ውስጥ አንድ እርምጃ ወደፊት የሚወስድ መሆኑን ያረጋግጣል። በሚቀጥሉት ጊዜያት ይህን የጋራ ትብብር እንደ መነሻ በመውሰድ ድርጅታችን በንጹህ ኃይል መስክ ያለውን የቴክኖሎጂ አቅም በመጠቀም የኢፒሲ ዕድልን ከግምት ውስጥ በማስገባት ለኢትዮጵያ ኤሌክትሪክ ኃይል ሁሉን አቀፍ ድጋፍና የአገልግሎት ዋስትናዎችን ሳናቋርጥ ለማድረግ ቁርጠኛ አቋማችን እንገልጻለን።

ፕሮጀክቱ ለሶማሊ ክልል ልማት ቀጣይነት ባለው መልኩ የላቀ ኢኮኖሚያዊና ማኅበራዊ ፋይዳ መፍጠሩ እንደተጠበቀ ሆኖ ለኢትዮጵያ የኃይል ልማት የበኩሉን አስተዋጾ እንደሚያበረክት እናምናለን።



MESSAGE FROM THE GENERAL MANAGER OF DONGFANG ELECTRIC INTERNATIONAL CORPORATION

Today, we jointly witness the official commissioning of the Ethiopia Aysha II Wind Power Project. This important moment embodies the wisdom and efforts of all parties and carries our shared pursuit of green development. On behalf of Dongfang Electric International Corporation(DEC), I express my heartfelt gratitude to Ethiopian Electric Power for its trust and support, all constructors for their hard work, and the local government and people for their strong assistance!

As the EPC contractor of the project, DEC has always taken “Safety First, Quality Supreme” as its core principle. From project design, equipment supply to construction and commissioning, we have adhered to high standards and strict requirements throughout the process to ensure the stable and efficient operation of every wind turbine. Day and night in Somali Region, we fought side by side with colleagues from Ethiopian Electric Power, overcoming one technical difficulty after another, and interpreting the profound friendship of “China-Africa cooperation as one family” through practical actions.

The successful commissioning of the project marks another solid step forward in China-Africa energy cooperation. In the future, taking this cooperation as a new starting point, we will continue to leverage DEC’s technological advantages and EPC capabilities in the clean energy field, providing comprehensive operational support and service guarantees for Ethiopian Electric Power. We will ensure the project continuously creates economic and social value, injects sustained momentum into the development of Somali Region, and contributes to Ethiopia’s energy cause!

Wish the project a smooth power generation and its benefits reach the people! May our cooperation write a new chapter and our friendship endure the test of time!





የአዋጭነት ጥናት

የአይሻ 2 የንፋስ ኃይል ማመንጫ ፕሮጀክት የአዋጭነት እንዲሁም የአካባቢና ማህበራዊ ተጽዕኖ ግምገማ ጥናት ዶንግ ፋንግ ኤሌክትሪክ ኢንተርናሽናል ኮርፖሬሽን በተባለ የቻይና ኩባንያ እ.ኤ.አ በ2016 የተከናወነ ነው። ጥናቱ እንደሚያሳየው በአካባቢው ያለው የረዥም ጊዜ አማካይ የንፋስ ፍጥነት በ80 ሜትር ከፍታ ላይ በሰከንድ 8 ነጥብ 89 ሜትር ያህል ነው። ጥናቱ ከአይሻ 2 በተጨማሪም በቀጣይ የሚገነቡትን የአይሻ 1 እና 3 ፕሮጀክቶችን አካቶ በድምሩ ከ420 ሜጋ ዋት በላይ ኃይል ማመንጫት እንደሚቻል አመለክቷል።

Feasibility Study & Impact Assessment

The Feasibility Study and the Environmental and Social Impact Assessment (ESIA) for the Aysha-2 Wind Farm Project were executed by Dongfang Electric International Corporation, a Chinese firm, in 2016.

The assessment determined that the long-term average wind speed at the project site, measured at a hub height of 80 meters, registers approximately 8.89 meters per second (m/s). Crucially, the study not only evaluated Aysha-2 but also incorporated the planned Aysha-1 and Aysha-3 projects, demonstrating a combined potential to yield a total power generation capacity exceeding 420 Megawatts



የፕሮጀክቱ መገኛና ጅማሮ

የአይሻ 2 የንፋስ ኃይል ማመንጫ በሶማሌ ክልል ሲቲ ዞን አይሻ ወረዳ ምስራቃዊ ክፍል ከአዲስ አበባ በ700 ኪሎ ሜትር፣ ከድሬዳዋ ከተማ ሰሜን ምስራቅ አቅጣጫ በ170 ኪሜ፣ ከጅቡቲ ድንበር በ40 ኪሜ፣ ከሶማሌ ላንድ ድንበር ደግሞ በ30 ኪሜ ርቀት ላይ እንዲሁም በታው ከባህር ጠለል በላይ ከ720 - 760 ሜትር ላይ ይገኛል።

የፕሮጀክቱ ወጪ 257 ነጥብ 285 ሚሊዮን የአሜሪካን ዶላር ሆኖ የግንባታው 85 በመቶ ወጪ ከቻይና ኤግዚም ባንክ በሚገኝ ብድር እንዲሁም ቀሪው 15 በመቶ በኢትዮጵያ ኤሌክትሪክ ኃይል በኢትዮጵያ ብር ይሸፈናል ተብሎ የተጀመረ ነው። የኢትዮጵያ ኤሌክትሪክ ኃይል እና የሥራ ተቋራጩ ዶንግ ፋንግ ኢንተርናሽናል በጥር 06 ቀን 2008 ዓ.ም ያደረጉት የኢፒሲ ኮንትራት ስምምነት ተከትሎ የግንባታ ሥራው የካቲት 18 ቀን 2009 ዓ.ም. ተጀምሯል። የግንባታ ስራው ዶንግ ፋንግ ኤሌክትሪክ ኢንተርናሽናል ኮርፖሬሽን በተባለ የቻይና ኩባንያ ሥራ ተቋራጭ እንዲሁም የማማከር ስራው ደግሞ በኢትዮጵያ ኤሌክትሪክ ኃይል ኢንጂነሪንግ እና ኮንስትራክሽን ዘርፍ ተከናውኗል።



PROJECT OVERVIEW

Project Name:
Aysha-2 Wind Farm Project

Location:
Eastern Aysha Woreda, Siti Zone,
Somali Regional State, Ethiopia



FINANCIAL DETAILS

Total Cost:
\$257.285 million USD

Financing Structure:
85% loan from China
Exim Bank
15% funded by Ethiopian
Electric Power (EEP)



TIMELINE & CONTRACTS

EPC Contract Signed:
Jan. 06, 2008 E.C. (b/w EEP &
Dongfang Electric International)

Construction Start:
Feb. 18, 2009 E.C. (À late 2016/
early 2017 G.C.)



KEY ENTITIES INVOLVED

Contractor:
Dongfang Electric International
Corporation (Chinese contractor)

Supervision & Consultancy:
EEP's Engineering & Construction
sector

Project Location, Financing, and Commencement

The Aysha-2 Wind Farm Project is strategically located in the eastern area of Aysha Woreda, Siti Zone, Somali Regional State. Its location details are as follows:



Distance from
Addis Ababa
700 km



Direction from Dire
Dawa City
170 km
to the northeast



Proximity to Borders
40km from the
Djibouti
30km from the
Somaliland



Elevation - The site rests
at an altitude ranging
720- 760m
above sea level.

The total project cost is specified at \$257.285 million USD. The initial financing structure planned for 85 percent of the construction cost to be covered by a loan from the China Exim Bank, with the remaining 15 percent allocated by Ethiopian Electric Power (EEP) in Ethiopian Birr.

The project officially commenced construction on February 18, 2009 E.C. (Corresponding to late 2016/early 2017 G.C.), following the execution of the EPC Contract Agreement between Ethiopian Electric Power and the contractor, Dongfang Electric International, on January 06, 2008 E.C. The construction work was carried out by the Chinese contractor, Dongfang Electric International Corporation, with the internal consultancy and supervision provided by EEP's own Engineering and Construction sector.

የፕሮጀክቱ ወሰን



48 የኒት የንፋስ ተርባይን ማመንጫዎች (WTGs) ተክለ



29.71 ኪ.ሜ.

33 የኃይል ማስተላለፊያ መስመሮች ዝርጋታ ኪሎ ሾልት



75 ሁለት ባለ ሜጋ ሾልት ትራንስፎርመሮች ያሉት ባለ 230 ኪሎ ሾልት ስዊችዮርድ ግንባታ



30 የቋሚ ሠራተኛ መኖሪያ ቤቶች ግንባታ



ለጥገና የሚያገለግሉ የውስጥ ለውስጥ መንገዶች ግንባታ

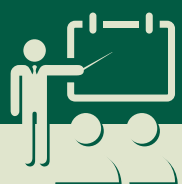


የአፕራክስና ጥገና አገልግሎት ድጋፍና የመለዋወጫ አቅርቦት



1.1 ኪ.ሜ. ርዝመት ያለው

230 የማስተላለፊያ መስመር ከነባሩ የሁርሶ-ጅቡቲ ባለ 230 ኪሎ ሾልት መስመር ጋር ማገናኘት ኪሎ ሾልት



ለኢትዮጵያ ኤሌክትሪክ ኃይል ሠራተኞች የሥልጠና ዕድል ማመቻቸት

Project Scope and Deliverables

The scope of the Aysha-2 Wind Farm Project encompasses the following major deliverables and infrastructure development elements:



Wind Power Generation

48 Installation and commissioning WTG units.



Internal Transmission

33 Erection of 29.71 kms of internal power transmission lines Kilovolt



Facilities & Access

30 Construction of permanent residential units for project staff.



Substation Infrastructure

with two **75** Construction of a 230 kV switch yard equipped transformers MVA



Access Roads

Development of internal access roads to facilitate operational maintenance and servicing



Support & Capacity Building

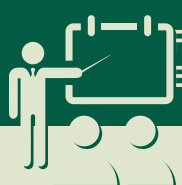
Provision of comprehensive Operation and Maintenance (O&M) service support and necessary spare parts supply.



Grid Interconnection

Construction of a 1.1 km transmission line

230 for integration with the existing Hurso-Djibouti 230 kV transmission line Kilovolt



Facilitation & Execution

specialized training programs for Ethiopian Electric Power (EEP) personnel.



የውል ክለሳ

ፕሮጀክቱ ሲፈረም የማጠናቀቂያ ጊዜው 18 ወራት የነበረ ቢሆንም በተለያዩ ምክንያቶች የማጠናቀቂያ ጊዜውን ወደ 68 ነጥብ 5 ወራት ከፍ ለማድረግ አራት የውል ማሻሻያዎች ተደርገዋል። ይሁንና ፕሮጀክቱ የውል ማሻሻያ ቢደረግለትም በሰዓቱ ሊጠናቀቅ አልቻለም። ይህም ብድር ሰጪው የቻይናው ኤግዚም ባንክ የከፍቶ መስተጓጎል ከማጋጠሙም ባሻገር የፕሮጀክቱ ምዕራፍ ሁለት ተቋሙ በራሱ ፋይናንስ ግንባታው እንዲካሄድ አስገድዷል።

Contract Revision

The original project completion timeline, as stipulated at the time of contract signing, was a concise 18 months. However, due to various mitigating factors, the project underwent four separate contract amendments, collectively extending the final completion period to 68.5 months.

Despite these significant contractual revisions, the project ultimately failed to meet the revised deadline. This outcome had dual consequences: it exacerbated the payment disruptions already faced by the primary lender, the China Exim Bank, and critically, it necessitated the institution to fund the construction of the project's Phase Two entirely through self-financing.

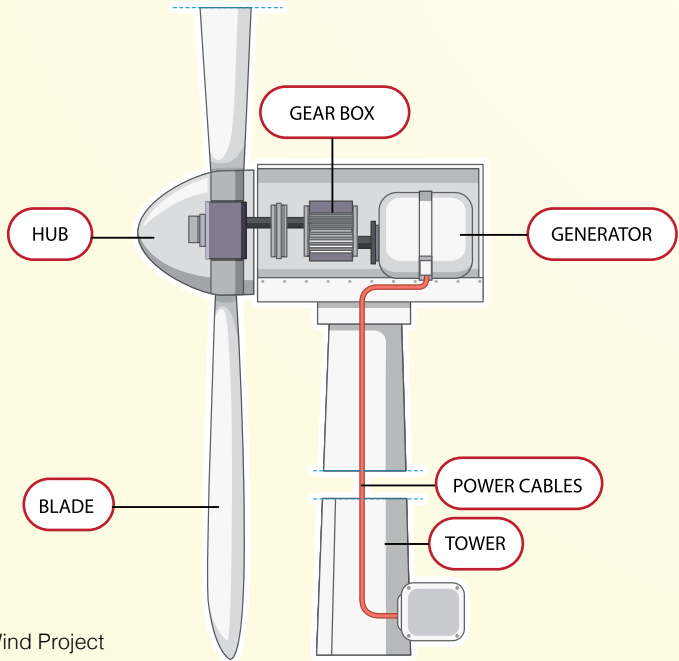
የተርባይኖች ጥቅል መረጃ

የአይሻ 2 ኃይል ማመንጫ ፕሮጀክት የተርባይን ተሽካሚ ምስሶ/ማማ ቁመት 78 ሜትር ሲሆን የተርባይኑ ከንፍ ዲያሜትር 103 ሜትር ነው። የእያንዳንዱ ተርባይን የከንፍ ርዝመት 50.3 ሜትር ነው። ፕሮጀክቱ እያንዳንዳቸው 2 ነጥብ 5 ሜጋ ዋት ኃይል የማመንጨት አቅም ያላቸው ቀጥተኛና ጥርስ አልባ 48 የንፋስ ተርባይኖች ያሉት ሲሆን በመጀመሪያው ምዕራፍ በአራት ዙር የ32 ተርባይኖች ተከላ ሥራ ተከናውኗል።

Rotor Diameter:
The turbine rotor (blade) diameter measures 103 meters.

Blade Length:
Each individual turbine blade has a length of 50.3 meters.

Tower Height (Hub Height):
The turbine carrier mast (tower) stands at a height of 78 meters.

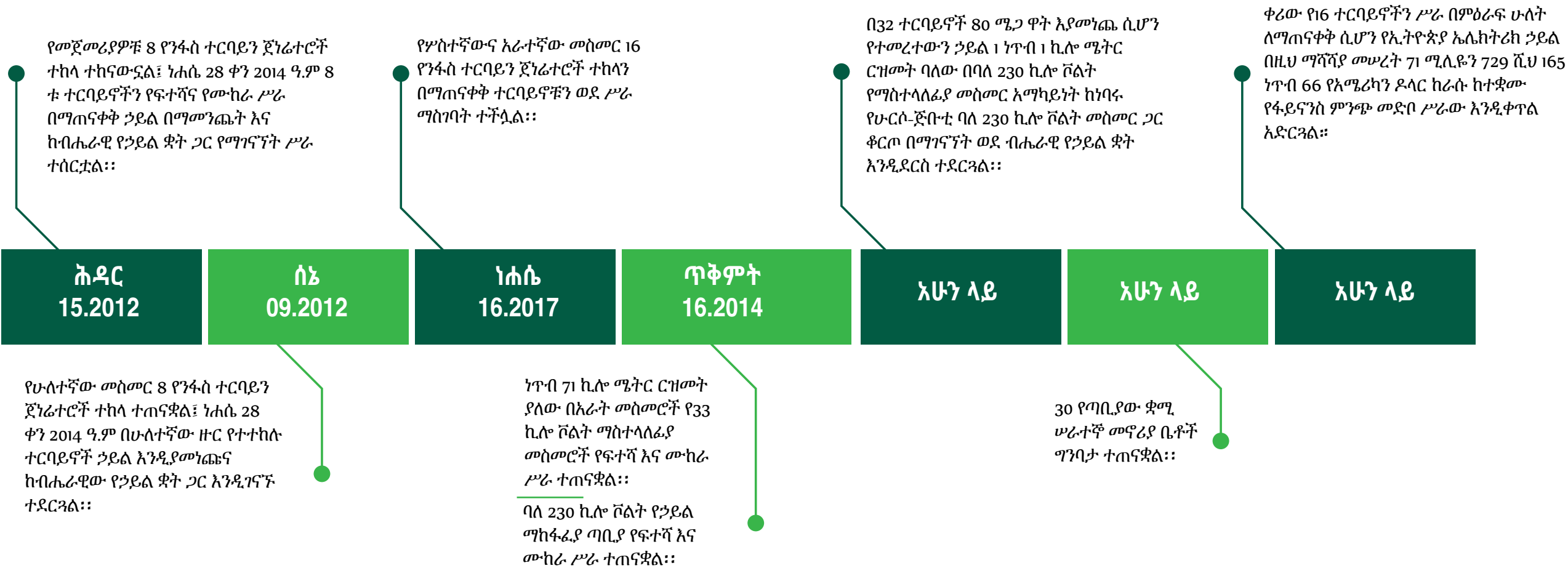


Wind Turbine Technical Data

The Aysha-2 Power Generation Project utilizes turbines with the following key specifications:

- **Generating Units:** The project comprises a total of 48 direct-drive, gearless wind turbines, with each unit possessing an installed capacity of 2.5 Megawatts (MW).
- **Phase I Installation:** During the initial phase of the project, the installation of 32 turbines was successfully executed across four distinct stages.

የተርባይኖች የተከለ ሂደት



Project Implementation Milestones

The installation and commissioning of the Aysha-2 Wind Farm Project followed a phased approach, marked by the following key milestones:

Initial Commissioning (Phase I, Round 1 & 2):

- The installation of the first 8 WTGs was completed on November 24, 2019 G.C.
- The installation of the second line of 8 WTGs was completed on June 16, 2020 G.C.
- Crucially, on September 3, 2022 G.C., Inspection and testing were finalized for both the first and second rounds (totaling 16 turbines), enabling them to commence power generation and successful interconnection with the national power grid.

Final Phase I Installation (Rounds 3 & 4):

- The installation of the remaining 16 WTGs for the third and fourth lines was completed on August 22, 2025 G.C., Subsequently commissioning those turbines into operation.

Substation and Transmission Readiness:

- On October 26, 2021 G.C., Inspection and testing were concurrently completed for both the 29.71 km of 33 kV transmission lines (across four circuits) and the 230 kV substation.

Current Operational Status:

- The 32 operational turbines are currently generating 80 MW.
- This power is successfully integrated into the national grid via a 1.1 km, 230 kV transmission line that strategically connects with the existing Hurso-Djibouti 230 kV line.

Auxiliary Completion & Future Work:

- Construction of the 30 permanent staff residential houses has been finalized.
- The remaining work for Phase Two, which involves the installation of 16 additional turbines, will proceed under an allocated budget of \$71,729,165.66 USD sourced entirely from Ethiopian Electric Power’s internal financial reserves.





የአይሻ 2 እና ዘመናዊ ቴክኖሎጂዎች

- ✦ የአይሻ 2 የንፋስ ኃይል ማመንጫ ፕሮጀክት ዲዛይን በክልሉ ያለውን የአየር ንብረትና መልካዓ ምድራዊ አቀማመጥ መሠረት አድርጎ የተዘጋጀ ከመሆኑም በላይ ጠንካራ የምህንድስና መፍትሔዎችን ከላቀ የንፋስ ኃይል ቴክኖሎጂ ጋር ያዋሃድ ነው።
- ✦ በኔትወርክ ሥርዓቱ ላይ የቮልቴጅ መረጋጋትን የማረጋገጥ ሥራ የሚያከናውን የስታቲስቲክ ቫር ጄኔሬተር (STATCOM Var Generator - SVG) ተገጥሞለታል።
- ✦ የንፋስ ኃይል ማመንጫው በስድስት ስብስቦች (clusters) የተደራጀ ሲሆን እያንዳንዱ ስብስብ ስምንት የንፋስ ተርባይን ጀነሬተሮችን ይዟል።
- ✦ ፕሮጀክቱ የኤሌክትሪክ አስተማማኝነትን ለማሻሻል የኤች አር ቲቪ II ፀረ-በክለት ብልጭታ ሽፋንን እና የሜካኒካል ዕቃዎች መበስበስን እንዲሁም የጥገና ፍላጎትን የሚቀንሱ የቀጥታ ድራይቭ ተርባይን ሥርዓቶችን ጨምሮ የተራቀቁ ቴክኖሎጂዎችን ተግባራዊ አድርጓል።
- ✦ ተርባይኖቹ ቀጥተኛና ጥርስ አልባ (Gear Less) ናቸው።

Advanced Technologies and Design of Aysha-2

The Aysha-2 Wind Farm Project integrates robust engineering solutions with state-of-the-art wind power technology, designed specifically to account for the region's unique climate and geographical conditions.

The project features several key technological implementations:

- **Grid Stability:** A STATCOM Var Generator (SVG) has been installed to actively ensure voltage stability throughout the network system.
- **Physical Configuration:** The wind farm is strategically organized into six clusters, with each cluster housing eight Wind Turbine Generators (WTGs).
- **Durability and Maintenance:** Advanced technologies have been implemented to enhance electrical reliability and reduce operational expenditure (OPEX):
 - HRTV II anti-pollution flashover coating is used to safeguard against environmental contamination.
 - Direct-drive, gearless turbine systems are employed, which significantly reduce the degradation of mechanical components and minimize maintenance requirements.



የአይሻ 2 የንፋስ ኃይል ማመንጫ ዘርፈ ብዙ ጠቀሜታ

ኤሌክትሪክ ለአገራዊ ኢኮኖሚያዊና ማህበራዊ የልማት እንቅስቃሴ የማይታዘዝ ሚና ካላቸው የልማት ዘርፎች መካከል አንዱና ዋነኛው ነው። የኢትዮጵያ ኤሌክትሪክ ኃይልም የተጣለበትን ይህን ታላቅ ሃገራዊ ሃላፊነት በአግባቡ ለመወጣት የሚረዱ የተለያዩ ስትራቴጂክ እርምጃዎችን በመቅረጽ ወደ ስራ ከገባ ስነባብቷል። ተቋሙ ካስቀመጣቸው ስትራቴጂካዊ ዕቅዶች አንዱ ተጨማሪ የኃይል ማመንጫዎችን መገንባት ሲሆን ከውሃ የኃይል ማመንጫ ባሻገር የንፋስ፣ እንፋሎት እና የፀሐይ ፀጋዎችን በመጠቀም የኃይል ስብጥሩን ባማከለ መልኩ እየሰራ ይገኛል።

በያዝነው በጀት ዓመት ኢትዮጵያ ታላቁን የህዳሴ ግድብ ፕሮጀክትን በመመረቅ የጀመረች ሲሆን በኃይል ልማቱ ዘርፍ የአይሻ ሁለት የንፋስ ኃይል ማመንጫ ፕሮጀክት ግንባታ የመጀመሪያውን ምዕራፍ አጠናቃ ለምርቃን ዝግጁ አድርጋለች። የአይሻ 2 የንፋስ ኃይል ማመንጫ ፕሮጀክት ከቴክኒካዊ እና ኢኮኖሚያዊ አስተዋፅኦዎቹ ባሻገር ከፍተኛ የሆኑ የማህበራዊ፣ ኢኮኖሚያዊ እና አካባቢያዊ ጥቅሞችን አስገኝቷል።

በፕሮጀክቱ የግንባታ ወቅት ከ300 በላይ ለሚሆኑ የአካባቢው ማህበረሰብ የሥራ ዕድሎች የተፈጠረ ሲሆን ይህም በክልሉ የሰራ ዕድልን ከመፍጠር ባሻገር ክህሎታቸውን እንዲያዳብሩ አስችሏል። ሀገር በቀል የሥራ ተቋራጮችና አቅራቢዎችን ተሳትፎ ከማሳደግም በላይ የማህበረሰቡን የእርስ በርስ ትስስር በማጠናከር ለክልሉ ኢኮኖሚ ድጋፍ አድርጓል።

የአይሻ 2 የንፋስ ኃይል ማመንጫ ፕሮጀክት ንፁህና ታዳሽ የኤሌክትሪክ ኃይል ወደ ብሔራዊ የኃይል ቋት ማዕከል በማቅረብ ትልቅ አካባቢያዊ ጥቅሞችን ያስገኛል። 467 ጌጋ ዋት ሰዓት ዓመታዊ የማመንጫት አቅም

ወደ ገጽ 43

THE MULTIFACETED SIGNIFICANCE OF THE AYSHA-2 WIND FARM

Electricity serves as a primary and indispensable driver for national economic and social development. Ethiopian Electric Power (EEP) has proactively operationalized various strategic measures to successfully discharge this critical national mandate. A core strategic pillar for the institution is the construction of new generating assets, actively pursuing an optimized energy mix that integrates wind, geothermal (steam), and solar resources alongside traditional hydropower.

In the current fiscal year, Ethiopia commenced with the landmark inauguration of the Grand Ethiopian Renaissance Dam (GERD). Within the power development sector, the Aysha-2 Wind Farm Project has successfully completed its initial construction phase and is now prepared for commissioning. Beyond its direct technical and economic returns, the project has demonstrably yielded substantial social, economic, and environmental benefits.

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ያለው ፕሮጀክቱ ከቅሪተ አካል የነዳጅ ኃይል ማመንጫ ጋር ሲነፃፀር በየዓመቱ ወደ 230,000 ቶን የሚጠጋ የካርቦን ዳይኦክሳይድ ልቀትን ይቀንሳል ተብሎ ይጠበቃል።

ይህ ግምት የተሰለው በዓለም አቀፍ ደረጃ በአየር ንብረት ለውጥ የባለሙያዎች ፓኔል (IPCC, 2006 መመሪያዎች) እና በየተባበሩት መንግሥታት የአየር ንብረት ለውጥ ሥምምነት የንፁህ ልማት ዘዴ (United Nations Framework Convention on Climate Change clean Development Mechanism - ACM0002) ማዕቀፍ በተቀመጠው መሠረት በአንድ ሜጋ ዋት ሰዓት 0.5 ቶን የካርቦን ዳይኦክሳይድ ልቀት በሚለው መደበኛ የግሪድ ልቀት መጠን ነው። መጠን ነው።

በዚህም መሠረት ፕሮጀክቱ የግሪን ሀውስ ጋዝ ልቀትን ለመቀነስ እና የአየር ንብረት ለውጥን የሚቋቋም አረንጓዴ ኢኮኖሚ ስትራቴጂን ለማራመድ ኢትዮጵያ በምታደርገው ቀጣይ ጥረት ውስጥ ትልቅና ትርጉም ያለው አስተዋፅኦ ያደርጋል።

ፕሮጀክቱ ለኢትዮ-ጅቡቲ የባቡር መስመር የኃይል አስተማማኝነትን ያሻሽላል፤ ቀጣናዊ የኃይል ትስስርን ያጠናክራል እና የኢንዱስትሪ ኮሪደርን ይደግፋል እንዲሁም ክልላዊ ልማትን ያበረታታል። የአይሻ ሁለት ፕሮጀክት የታዳሽ ኃይል ፕሮጀክቶች አካባቢን እየጠበቁ ተጨባጭ ማህበራዊ ዕድገትን እንዴት ማምጣት እንደሚችሉ የሚያሳይ የኃይል ማመንጫ ጣቢያ ሲሆን የአይሻ ከተማ እድገት እንዲነቃቃ እና መስፋፋት እንዲፈጠር በማድረግ ጉልህ ሚና ይጫወታል።

የአይሻ 2 የንፋስ ኃይል ማመንጫ የመጀመሪያ የግንባታ ምዕራፍ ጣቢያው ሲጠናቀቅ ማመንጫው ከሚችለው 120 ሜጋ ዋት ውስጥ 80 ሜጋ ዋት እያመነጨ ነው። አሁን ላይ የሁለተኛውን ምዕራፍ የግንባታ ፋይናንስ የኢትዮጵያ ኤሌክትሪክ ኃይል በመሸፈን በፍጥነት ለማጠናቀቅ እየተሠራ እንደሚገኝ ተቋሙ ይፋ አድርጓል። ፕሮጀክቱ በንፋስ ኃይል የተሻለ የማምረት አቅም ያለው በመሆኑም ሙሉ በሙሉ ሲጠናቀቅ ለምስራቁ ግሪድ የሲስተም መረጋጋት ከፍተኛ አስተዋጽኦ ይኖረዋል።

ከአዲስ አበባ 700 ኪሎ ሜትር ርቀት ላይ በሶማሌ ክልል አይሻ ከተማ አቅራቢያ የሚገኘው የአይሻ ሁለት የንፋስ ኃይል ማመንጫ ፕሮጀክት ሙሉ ለሙሉ ሲጠናቀቅ 48 ተርባይኖች የሚኖሩት ሲሆን፤ እያንዳንዳቸው 2.5 ሜጋ ዋት በድምሩ 120 ሜጋ ዋት የማመንጫው አቅም አለው።

Socio-Economic Impact

- **Local Employment and Capacity:** During the project's construction period, over 300 job opportunities were generated for the local community, successfully providing regional employment and enabling workers to enhance their technical competencies.
- **Regional Economy:** The project bolstered the regional economy by strengthening community cohesion and promoting the participation of indigenous contractors and suppliers.
- **Urban Development:** Aysha-2 plays a pivotal role in stimulating the growth and expansion of Aysha town.

Environmental and Climate Impact

- **Clean Energy Contribution:** Aysha-2 supplies clean, renewable electricity to the national grid, yielding significant environmental advantages.
- **Carbon Reduction:** With an estimated annual generation capacity of 467 Gigawatt-hours (GWh), the project is projected to mitigate approximately 230,000 tons of CO_2 emissions annually, calculated against a fossil fuel equivalent.
- **Climate Strategy Alignment:** This projection is founded upon the standard id emission factor of 0.5 tons of CO_2 per MWh (derived from the Intergovernmental Panel on Climate Change (IPCC, 2006 guidelines) and the United Nations Framework Convention on Climate Change Clean Development Mechanism - ACM0002 framework). Consequently, the project makes a material and meaningful contribution to Ethiopia's continuing efforts to reduce greenhouse gas emissions and advance its Climate-Resilient Green Economy Strategy.

Strategic and Regional Benefits

- **Infrastructure Support:** The project will enhance power reliability for the Ethio-Djibouti railway line and support the broader industrial corridor.
- **Regional Interconnection:** It will strengthen regional power interconnection and actively stimulate regional development.
- **Development Model:** Aysha-2 serves as a model power station, showcasing how renewable energy projects can successfully deliver tangible social progress while simultaneously upholding environmental stewardship. It plays a significant role by stimulating the growth and expansion of Aysha town.

Operational Summary

The Aysha-2 Wind Farm Project, located 700 km from Addis Ababa near Aysha town in the Somali Region, has a total design capacity of 120 MW from 48 turbines (each rated at 2.5 MW) upon full completion. The initial construction phase is currently generating 80 MW. EEP has recently disclosed that it is utilizing internal financing to cover the second construction phase and is targeting aggressive completion. The project's superior wind production potential ensures that its full commissioning is set to provide a crucial contribution to the system stability of the Eastern Grid.



“ንፋስ” ተፈጥሯዊው ውዱ በረከት

ከዘፍጥረት ጀምሮ የሰው ልጅ ንፋስን ለተለያዩ አገልግሎቶች ሲጠቀምበት ኖሯል። ከንፋስ ኃይል ሙቀትን በመፍጠር ብረትን ለማቅለጥ፣ ውሃን ከጉድጓድ ውስጥ ለማውጣት፣ በሽራ በተወጠሩ መርከቦች ለመጓጓዣ አገልግሎት እንዲሁም ኤሌክትሪክን ለማመንጨት እና ለሌሎች ተግባራት ሲውል ቆይቷል። በጎርጎርሲያኑ ነሐሴ 1887 በግላስኮው ስኮትላንድ የአንደርሰን ኮሌጅ ፕሮፌሰር የሆኑት ጄምስ ብሉዝ የመጀመሪያውን የንፋስ ተርባይን መፍጠራቸውን የታሪክ ማህደር ያሳያል።

የፕሮፌሰሩን ፈጠራ ተከትሎ በዓለም ላይ በተለይ ከባለፉት ሁለት አስርት አመታት ወዲህ ዘመናዊ ቴክኖሎጂን በመታገዝ የተፈጥሮ ፀጋ የሆነውን ንፋስን የኤሌክትሪክ ኃይል እንዲያመነጭ በማድረግ መጠነ ሰፊ ተግባራት ተከናውኗል። ከታዳሽ የኃይል ምንጭ አንዱ የሆነው ንፋስ ዘመኑ ባፈራቸው ተርባይኖች አማካኝነት በመታገዝ ኤሌክትሪክ ያመነጫል። ተርባይኖች በንፋስ ውስጥ ያለውን ኬሚካል ኃይል ወደ መካኒካል ኃይል በመቀየር በጄኔሬተር በመታገዝ ኤሌክትሪክ ያመነጫሉ።

የዓለም የንፋስ ኢነርጂ ካውንስል በያዝነው የፈረንጆች ዓመት ባወጣው ሪፖርት በዓለም አቀፍ ደረጃ ከ56-400 ቴራዋት ሰዓት የሚገመት የኤሌክትሪክ ኃይል ማመንጨት የሚችል እምቅ አቅም መኖሩን ገልጾ በአሁኑ ወቅት ከ1.5 ቴራዋት ሰዓት በታች እየመነጨ መሆኑን ያመለክታል። ይሁንና ባደጉ ሀገራት በተለይ ቻይና፣ አሜሪካ፣ ጀርመን፣ ህንድ እና ጣሊያን በዘርፉ የአንበሳውን ድርሻ በመውሰድ ከዘርፉ ለመጠቅም ስርተዋል።

የንፋስ ኃይል አጠቃቀምን በተመለከተ ዝርዝር ጉዳዮችን ይዞ የወጣው ሪፖርቱ የአህጉራትን እና ሀገራትንም ተሞክሮዎች ባተተበት አውዱ አፍሪካ 33,500 ጌጋዋት ኃይል የማመንጨት አቅም ቢኖራትም ከአንድ በመቶ በታች እየተጠቀመችበት እንደምትገኝ አመለክቷል።

በምስራቅ አፍሪካ ኢትዮጵያ የንፋስ ኃይልን በመጠቀም ረገድ ትኩረት ሰጥታ በመስራት ላይ ትገኛለች።

The Invaluable Natural Resource: Wind

Since the earliest accounts of creation, humanity has harnessed wind for a multitude of applications. Historically, wind energy has been utilized to generate heat for smelting metals, facilitate water extraction from wells, provide transport via sail-driven vessels, and, notably, to generate electricity. Historical records confirm that Professor James Blyth of Anderson’s College in Glasgow, Scotland, constructed the first known wind turbine in August 1887.

Following this foundational invention, extensive global endeavors have taken place, particularly over the last two decades, leveraging modern technology to transform wind—a natural blessing—into electrical power.

As a critical renewable energy source, wind generates electricity via contemporary turbines. These turbines function by converting the kinetic energy inherent in the wind into mechanical energy, which is then transformed into electricity with the aid of a generator.

The Global Wind Energy Council (GWEC), in its report for the current year, estimates a massive worldwide electrical generation potential ranging from 56 to 400 Terawatt-hours (TWh), yet indicates that current output remains below 1.5 TWh. Despite this gap, developed nations—notably China, the United States, Germany, India, and Italy—have secured the primary share of benefits from this sector.



በኢኮኖሚ ዘርፉ ከተሰማሩት ዓለማዊ ተቋማት ባሻገር የኢትዮጵያ ኤሌክትሪክ ኃይል ከውሃ እና ኢነርጂ ሚኒስቴር ጋር በመተባበር በተለያዩ ጊዜ ባጠናዉ ጥናት እንዳረጋገጠው ሀገሪቱ ከአስር ሺህ ሜጋዋት በላይ የማመንጨት እምቅ አቅም እንዳላት ይፋ አድርጓል፡፡

በኢትዮጵያ ያለውን እድል ተጠቅሞ የህብረተሰቡን የኃይል ተደራሽነት ለማስፋት ባለፉት አስራ ሁለት አመታት በተሰራው ስራ አዳማ አንድ እና ሁለት እንዲሁም አሸንዳይን በመገንባት አጠናቆ የብሄራዊ ኃይል ቋትን እንዲመግቡ ከማድረግ አልፎ የአሰላ የንፋስ ኃይል ማመንጫን ከ85 በመቶ በላይ ያጠናቀቀ ሲሆን በሱማሌ ክልል ሲቲ ዞን የሚገኘውን የአይሻ ሁለት የንፋስ ኃይል ማመንጫ የመጀመሪያ ምዕራፉን አጠናቆ ለምርቃት አብቅቷል፡፡

መረጃዎች እንደሚጠቁሙት ኢትዮጵያ ካላት እምቅ የንፋስ ኃይል አኳያ አንድ በመቶውን እንኳን አልተጠቀመችበትም፡፡ ሀገሪቱ ካላት የተፈጥሮ ሀብቶቿ በኃይሉ ዘርፍ ከ90 በመቶ በላይ ያለውን ከውሃ የምታገኝ ሲሆን የንፋስ፣ የፀሃይ እንዲሁም የእንፋሎት ኃይል ማመንጫ ላይ እቅድ ነድፎ በመስራት የኃይል ስብጥሩን በማመጣጠን አቅርቦቱ ላይ የሚስተዋሉ ችግሮችን ለመፍታት እየስራች ትገኛለች፡፡

ከሰው ልጆች እስትንፋስ አልፎ ተፈጥሯዊው ዉድ በረከት የሆነው ንፋስ በኃይሉ ዘርፍ የካርቦንዳይኦክሳይድ ልቀትን በመቀነስ፣ የኤሌክትሪክ ኃይል ፍላጎትን በማሟላት እና የአካባቢን ደህንነትን በመጠበቅ የታዳሽ ኃይሉን ዘርፍ በማነቃቃት ጉልህ ድርሻ አለው፡፡

In its detailed analysis of wind power utilization, the GWEC report also highlighted the continental and national experiences, noting that Africa possesses an estimated potential of 33,500 Gigawatts (GW), but currently utilizes less than one percent of this capacity.

Within East Africa, Ethiopia is strategically prioritizing the utilization of wind power. Comprehensive studies conducted by Ethiopian Electric Power (EEP) in collaboration with the Ministry of Water and Energy and other international energy institutions have confirmed that the country holds an indigenous potential to generate in excess of 10,000 Megawatts (MW).

To capitalize on this national opportunity and expand energy accessibility, sustained efforts over the past twelve years have culminated in the construction and commissioning of the Adama 1 and 2, and Ashegoda wind farms, which are integral to the national power grid. Furthermore, the Assela Wind Farm is over 85 percent complete, and the first phase of the Aysha-2 Wind Farm, situated in the Siti Zone of the Somali Region, has been finalized and readied for inauguration.

Data underscores that Ethiopia has exploited less than one percent of its vast potential wind capacity. Over 90 percent of the nation’s current power generation is sourced from hydro resources. Accordingly, the country is now developing and executing comprehensive plans for wind, solar, and geothermal power generation to actively diversify its energy mix and mitigate existing supply challenges.

Beyond its role in supporting human activity, wind—this natural and invaluable resource—plays a pivotal role in revitalizing the renewable energy sector by fulfilling electricity demand, ensuring environmental safety, and crucially, reducing carbon dioxide emissions in the power generation sector.







የቀደመ የንፋስ ሃይል ማንጨዎች

የአዳማ አንድ የንፋስ ሃይል ማመንጫ ጣቢያ በአሮሚያ ብሔራዊ ክልላዊ መንግስት ከአዲስ አበባ በስምስራቅ አቅጣጫ በ95 ኪሎ ሜትር በአዳማ ከተማ ቅርብ ርቀት ላይ ይገኛል።

የኃይል ማመንጫ ጣቢያ ግንባታ ተጠናቆ ኃይል የማመንጨት ስራ የጀመረው ከ2005 ዓ.ም ጀምሮ ነው።

THE PIONEER WIND POWER PLANT

The Adama I Wind Power Plant is located in the Oromia National Regional State, 95 kilometers east of Addis Ababa, near the city of Adama.

The construction of the power plant was completed and it commenced power generation in 2013 G.C. The construction was carried out by a French company called vergney.

The Adama I Power Plant is the first of the wind power plants in our country. The plant has a total of 34 turbines; as each has a generating capacity of 1.5 megawatts, they generate a total of 51 megawatts.



የአዳማ ሁለት የንፋስ ኃይል ማመንጫ ጣቢያ ADAMA II Wind Farm

የአዳማ ሁለት የንፋስ ኃይል ማመንጫ ጣቢያ በአሮሚያ ብሔራዊ ክልላዊ መንግስት ከአዲስ አበባ በስምስራቅ አቅጣጫ በ95 ኪሎ ሜትር በአዳማ ከተማ ቅርብ ርቀት ላይ ይገኛል።

የኃይል ማመንጫ ጣቢያ ግንባታ 2005 ዓ.ም ተጀምሮ ከ2007 ዓ.ም ለአግልሎት በቅቷል።

የአዳማ ሁለት የንፋስ ኃይል ማመንጫ ግንባታ በቻይናው ኃይድሮ ቻይናና ሲጂሲ አቨርሲስ ኮንስትራክሽን ተከናውኗል።

የአዳማ ሁለት ኃይል ማመንጫ ጣቢያ በሀገራችን ካሉ የንፋስ ኃይል ማመንጫ ጣቢያዎች የመጀመሪያው ነው። ጣቢያው 102 ጠቅላላ ተርባይኖች ያሉት ሲሆን እያንዳንዳቸው 1.5 ሜጋ ዋት የማመንጫት አቅም ያላቸው ሲሆን በድምሪ 153 ሜጋ ዋት ያመነጫሉ።

ለፕሮጀክቱ 345 ሚሊዮን ዶላር ወጪ ሲደረግ 85 በመቶው ከቻይና መንግስት በተገኘ ብድር፤ ቀሪው 15 በመቶ ደግሞ በኢትዮጵያ መንግስት ተሸፍኗል።

The Adama II Wind Farm is located in the Oromia National Regional State, approximately 95 kilometers southeast of Addis Ababa, near the city of Adama. Construction of the power generation plant began in 2005 and was completed for service in 2007.

The construction of the Adama II Wind Farm was carried out by the Chinese companies HydroChina and CGCOC (China Gezhouba Group Overseas Construction).

The Adama II Power Plant is the first among the wind power generation stations in our country. The station comprises a total of 102 turbines, each with a generation capacity of 1.5 megawatts, collectively producing 153 megawatts of electricity.

The project cost 345 million US dollars, with 85 percent of the funding provided as a loan from the Chinese government, while the remaining 15 percent was covered by the Ethiopian government.



የአሰላ የንፋስ ኃይል ማመንጫ ጣቢያ

የአሰላ የንፋስ ኃይል ማመንጫ ጣቢያ በአሮሚያ ብሔራዊ ክልላዊ መንግስት ከአዲስ አበባ በስተደቡብ ምስራቅ አቅጣጫ 150 ኪሎ ሜትር በአሰላ ከተማ ቅርብ ርቀት ላይ ይገኛል።

የኃይል ማመንጫ ጣቢያ ግንባታ በ2013 ዓ.ም የተጀመረ ሲሆን በ2018 ይጠናቀቃል ተብሎ ይጠበቃል። በአሁኑ ወቅትም የፕሮክቴክ አጠቃላይ አፈፃፀም በመቶ ደርሷል ።

የአሰላ የንፋስ ኃይል ማመንጫ ጣቢያ በሀገራችን ካሉ አምስተኛው የንፋስ ኃይል ማመንጫ ጣቢያዎች አምስተኛው ነው። ጣቢያው 29 ጠቅላላ ተርባይኖች ያሉት ሲሆን እያንዳንዳቸው 3.465 ሜጋ ዋት የማመንጫት አቅም ያላቸው ሲሆን በድምሪ 100 ሜጋ ዋት ያመነጫሉ።

የግንባታው ሥራ ተቋራጭ ሲመነስ ጋሜሳ በተባለ ኩባንያ በ145 ሚሊዮን ዩሮ በጀት በመገንባት ላይ ይገኛል።

ASELLA WIND POWER PLANT

The Asella Wind Power Plant is located in the Oromia National Regional State, approximately 150 kilometers southeast of Addis Ababa, near the city of Asella.

Construction of the power generation plant commenced in 2013 and is expected to be completed by 2018. Currently, the overall project progress has reached percent.

The Asella Wind Power Plant is the fifth among the wind power generation stations in our country. The facility comprises a total of 29 turbines, each with a generation capacity of 3.465 megawatts, collectively producing 100 megawatts of electricity.

The construction work is being carried out by the contractor Siemens Gamesa, with a budget of 145 million euros.



የአሸንዳ የንፋስ ኃይል ማመንጫ ጣቢያ

የአሸንዳ የንፋስ ሃይል ማመንጫ ጣቢያ በትግራይ ብሔራዊ ክልላዊ መንግስት ከአዲስ አበባ በስተሰሜን አቅጣጫ በ770 ኪሎ ሜትር

ከመቀሌ ደግሞ በስተደቡብ ምስራቅ 30 ኪሎ ሜትር ርቀት ላይ ይገኛል።

የኃይል ማመንጫ ጣቢያው በ2002 ዓ.ም ተጀምሮ በ2005 ዓ.ም ኃይል ማመንጫት ጀምሯል።

የአሸንዳ ንፋስ ኃይል ማመንጫ ጣቢያ በሀገራችን ካሉ የንፋስ ኃይል ማመንጫ ጣቢያዎች ሁለተኛው ነው።

ማመንጫ ጣቢያው 84 ጠቅላላ ተርባይኖች አሉት ከ84 የንፋስ ተርባይ ውስጥ 30 ተርባይኖች ባለ ሁለት ክንፍ ሲሆኑ እያንዳንዳቸው 1 ሜጋ ዋት የማመንጫት አቅም አላቸው። ቀሪ 54 ተርባይኖች ደግሞ ባለ ሶስት ክንፍ ሲሆኑ እያንዳንዳቸው 1.67 MW የማመንጫት አቅም አላቸው። በአጠቃላይ የኃይል ማመንጫ ጣቢያው 120 ሜጋ ዋት የማመንጫት አቅም አለው።

ግንባታውን ያከናወነው ቨርኔይ (vergne) በተባለ የፈረንሳይ ኩባንያ ነው። ጣቢያው ከ210 ሚሊዮን ዩሮ በላይ ወጪ የተደረገበት ሲሆን ከፈረንሳይ አገር በተገኘ ብድር ተሸፍኗል።

ASHEGODA WIND POWER PLANT

The Ashegoda Wind Power Plant is located in the Tigray National Regional State, 770 kilometers north of Addis Ababa, and 30 kilometers southeast of Mekelle.

The construction of the power plant began in 2010 G.C. and it commenced power generation in 2013 G.C.

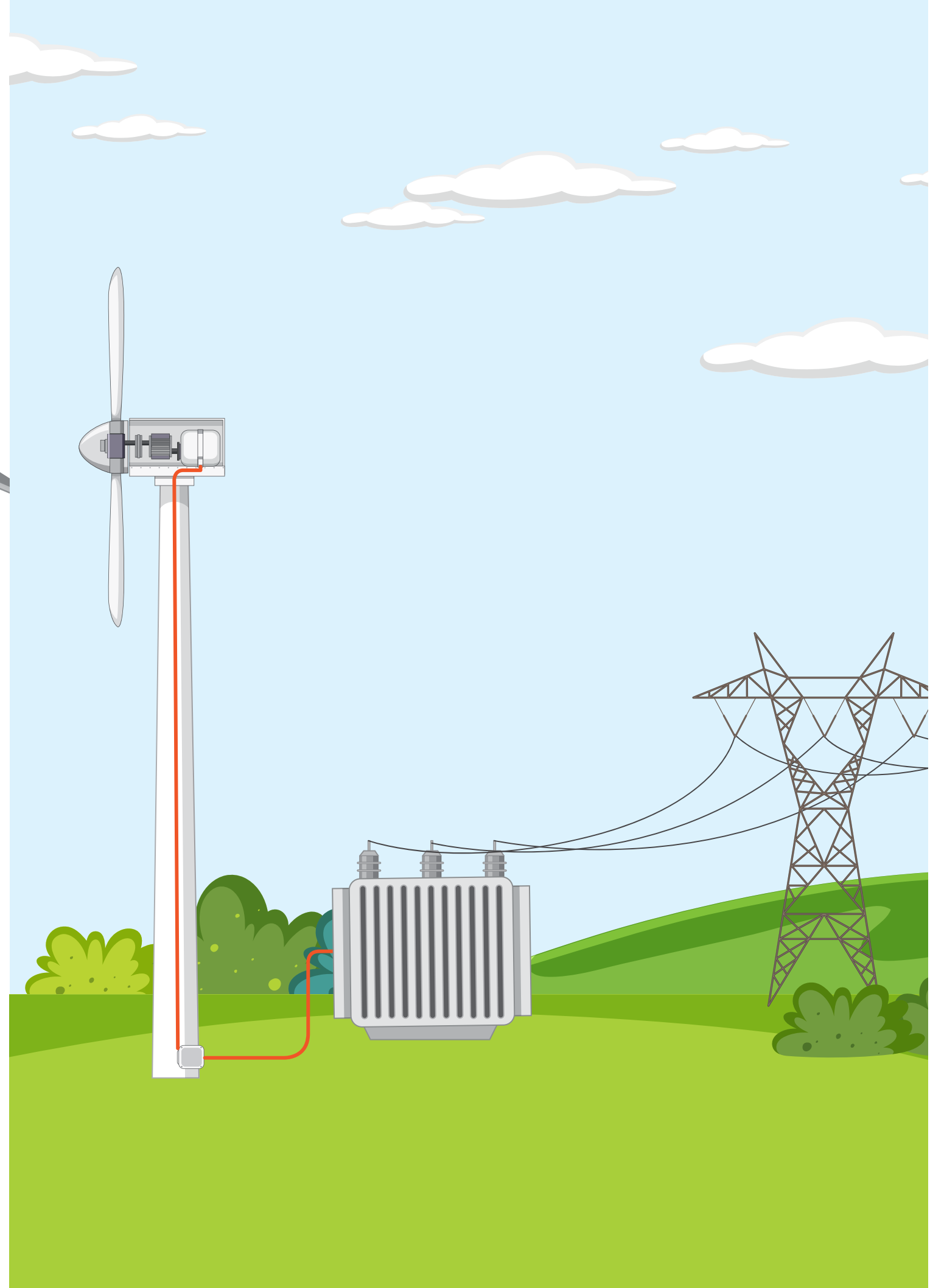
The Ashegoda Wind Power Plant is the second wind power plant in our country.

The power plant has a total of 84 turbines. Of these 84 wind turbines, 30 are two-bladed, each having a generating capacity of 1 megawatt. The remaining 54 turbines are three-bladed, each having a generating capacity of 1.67 MW. The power plant has an overall generating capacity of 120 megawatts.

The construction was carried out by a French company called vergne. The plant incurred a cost of over 210 million Euros, which was covered by a loan obtained from France.



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AFRICA
TOGETHER





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