



**150 MW BURGOS WIND  
PROJECT  
&  
BURGOS SOLAR 1 AND 2  
PROJECTS**

**Energy Investment Forum 2016**  
*Isabela Ballroom, Makati Shangri-La Hotel*  
*06 December 2016*



# 150MW BURGOS WIND IS EDC'S FIRST WIND POWER PROJECT & IS THE LARGEST IN THE SOUTHEAST ASIA

- Project developed thru wholly-owned subsidiary EDC Burgos Wind Power Corp.



EDC  
BURGOS  
WIND  
POWER  
CORPORATION

- The Project harnesses the abundant wind resources of Ilocos Norte
- Comprised of 3 components:
  - 686-hectare, 50-turbine wind farm
  - 150MW substation
  - 43-km transmission line
- Construction commenced in June 2013. In April 2014, initial 87MW project was expanded to 150MW
- Power from Burgos is sold via the Feed-in-Tariff system
- Will displace 225,000 tons of carbon emissions yearly; clean energy for almost 2 million households

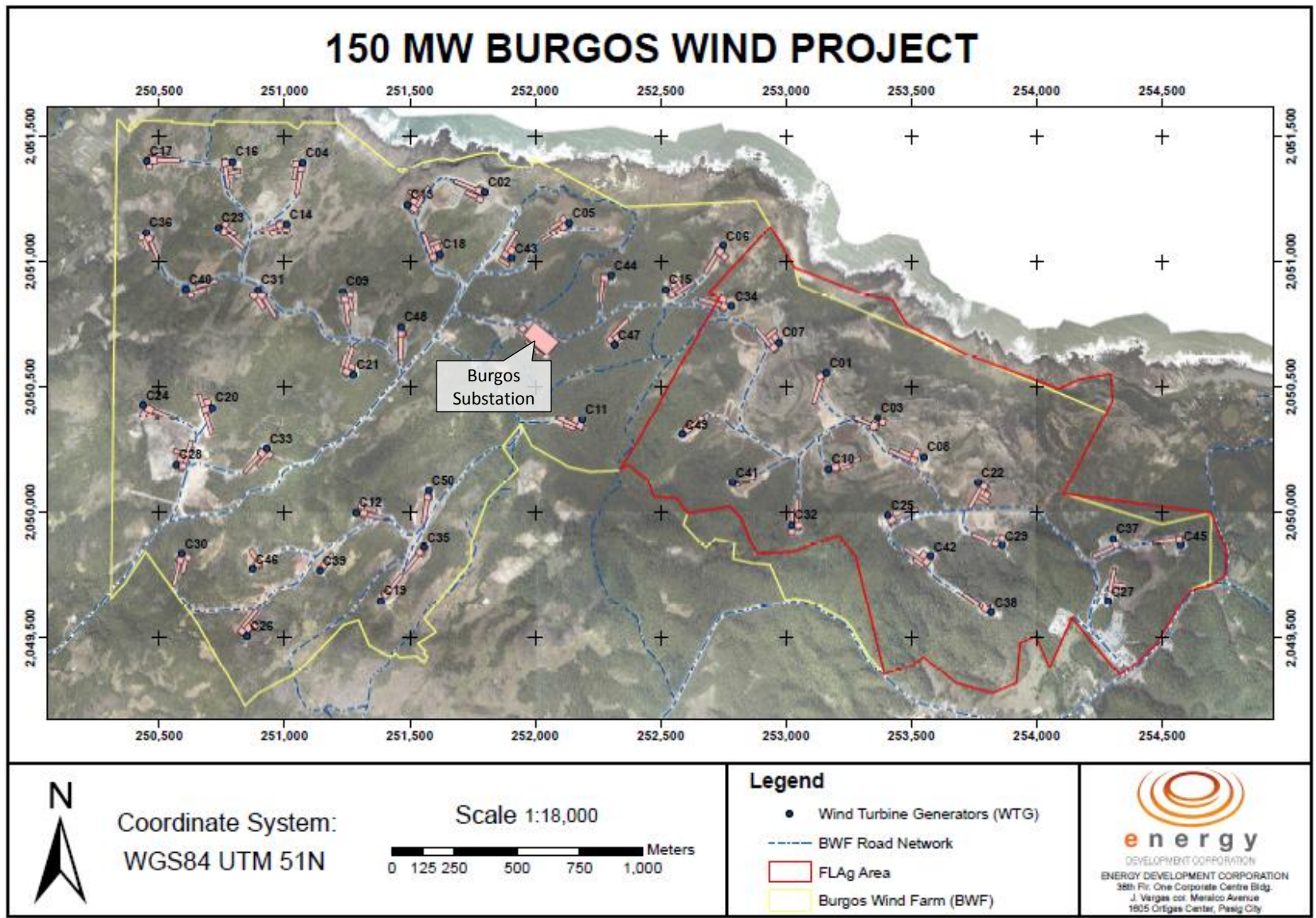
**Contractors:**

**Vestas**

**ALSTOM**

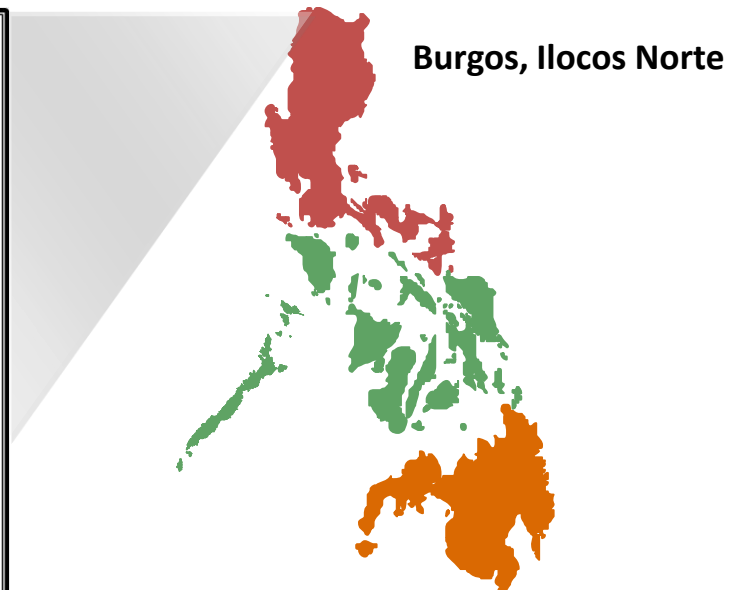
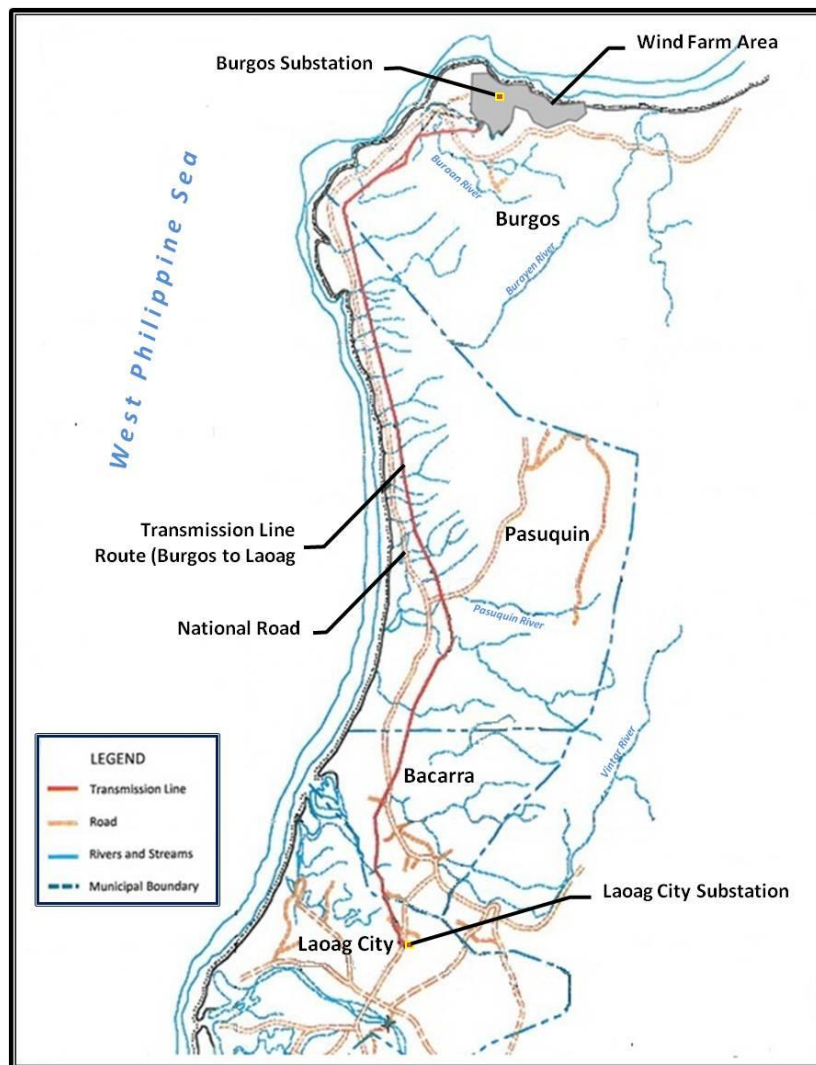
**First Balfour**

# OVER 680 HECTARES OF THE WESC AREA WAS USED TO OPTIMALLY SITE 50 WIND TURBINE GENERATORS



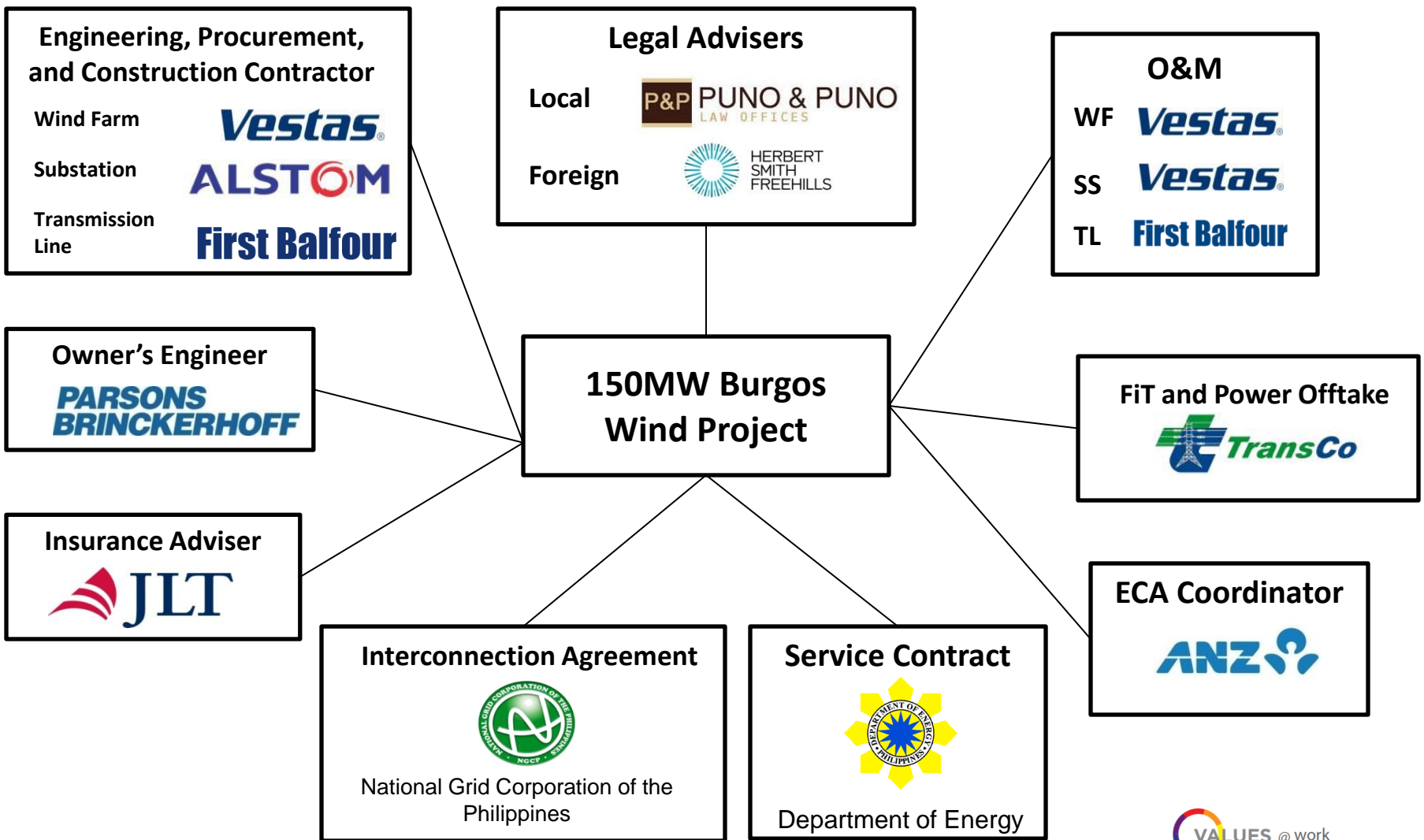


# A 43-KM TRANSMISSION LINE CONNECTS THE PROJECT TO THE LAOAG SUBSTATION OF THE NATIONAL GRID CORP OF THE PHILIPPINES



- Traverses 3 municipalities, 1 city and 27 barangays
- Comprised of 128 steel towers and 20 steel poles

# WE WORKED WITH INDUSTRY LEADERS TO DELIVER THE PROJECT



# KEY PERMITS WERE SECURED PRIOR TO CONSTRUCTION, ENABLING CONTINUOUS CONSTRUCTION PROGRESS

- ✓ Declaration of Commerciality (DOE)
- ✓ LGU Endorsements (1 province, 1 city, 3 municipalities, 27 barangays)
- ✓ Connection Agreement (NGCP)
- ✓ Easement rights to 2,148 private lots<sup>1</sup>
- ✓ Forest Land Use Agreement for public lots
- ✓ Environmental Compliance Certificate (DENR)
- ✓ Certificate of Non-Overlap (NCIP)
- ✓ Tree cutting permits (DENR)

Permits allowing FIT eligibility were also subsequently secured:

- ✓ Feed-in-tariff Certificate of Endorsement (DOE)
- ✓ Feed-in-tariff Certificate of Compliance (ERC)
- ✓ RE Payment Agreement (Transco)
- ✓ WESM Registration (PEMC)

<sup>1</sup> Note: perfection of land rights, including registration and annotation of the real estate mortgage still ongoing

# AFTER JUST 18 MONTHS OF CONSTRUCTION, WE DECLARED COMMERCIAL OPERATIONS ON 11 NOV 2014



- 50WTGs connected to grid on 5 November 2014
- Over 5.0Mn safe man-hours to-date from construction period
- Received FIT Eligibility for the full 150MW beginning 11 November 2014
- Began collections for FIT Revenue amounting to Php 8.53/kWh in April 2015.

# BURGOS IS EDC'S SINGLE LARGEST INVESTMENT TO-DATE & IS SUPPORTED BY DANISH EXPORT CREDIT FINANCING

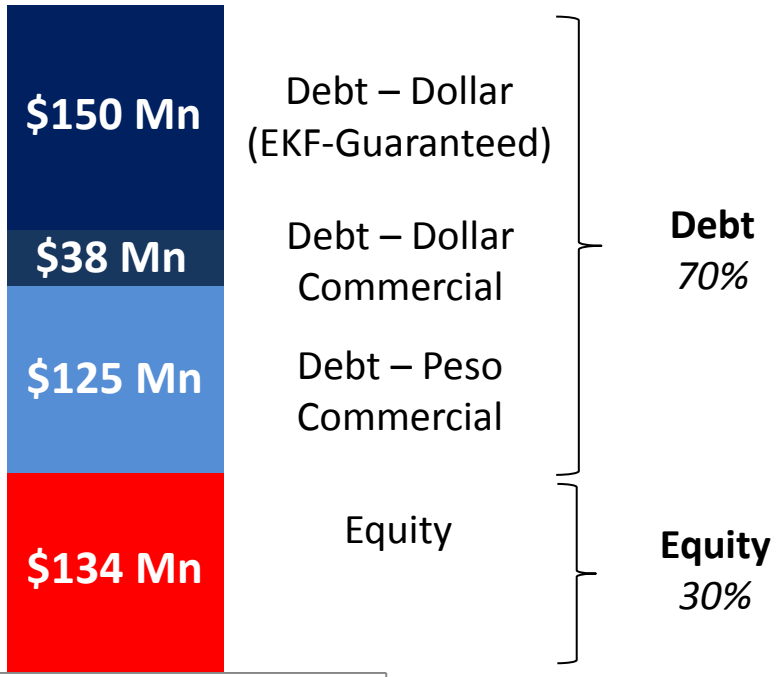


## \$450 Mn

## \$315 Mn

*total project cost*

*EKF-supported project financing package*



- 15-year limited recourse, dollar-peso financing

Project Cost



# THE PROJECT FINANCING HAS SINCE BEEN INTERNATIONALLY ACKNOWLEDGED THROUGH SEVEN AWARDS

1. 2014 Asia-Pacific Renewable Deal of the Year (Project Finance International)
2. Asia Wind Deal of the Year (Infrastructure Journal Global of EuroMoney)
3. Asia Pacific Deal of the Year (Trade Finance Magazine)
4. Best Deal of 2014 (Global Trade Review)
5. Top Ten Global Deals of the Year – Best ECA Backed Green Deal (Trade and Export Finance)
6. 2015 Asia Projects of the Year (Power Engineering International)
7. PFI Asia Best Practices Citation (Project Finance International – Asia Infrastructure Projects)



U-D: 2014 Asia-Pacific Renewable Deal of the Year by Project Finance International; Top Ten Global Deals of the Year – Best ECA Backed Green Deal by Trade and Export Finance

# CSR PROGRAMS ARE IMPLEMENTED AND FOCUSED ON THE HOLISTIC GROWTH OF OUR HOST COMMUNITIES

## HEALTH



✓ Installation of toilet and hand washing facilities



✓ Feasibility study on low cost community water treatment

## EDUCATION



✓ Creation of learning modules for high school students



✓ Manpower trainings

## LIVELIHOOD



✓ Pasture development



✓ Livelihood skills trainings

## STAKEHOLDER ENGAGEMENT



✓ Brgy-level Information, Education, & Communication campaign



✓ Community-level disaster preparedness seminars



✓ Established grievance mechanism



✓ LGU capability building trainings

## ENVIRONMENT



✓ Tree-planting in DENR-NGP reforestation areas  
✓ Tree-planting of premium tree species in partner public schools

## 6.8MW BURGOS SOLAR FARM IS THE FIRST IN SOUTH EAST ASIA TO BE CO-LOCATED WITH A WIND FARM

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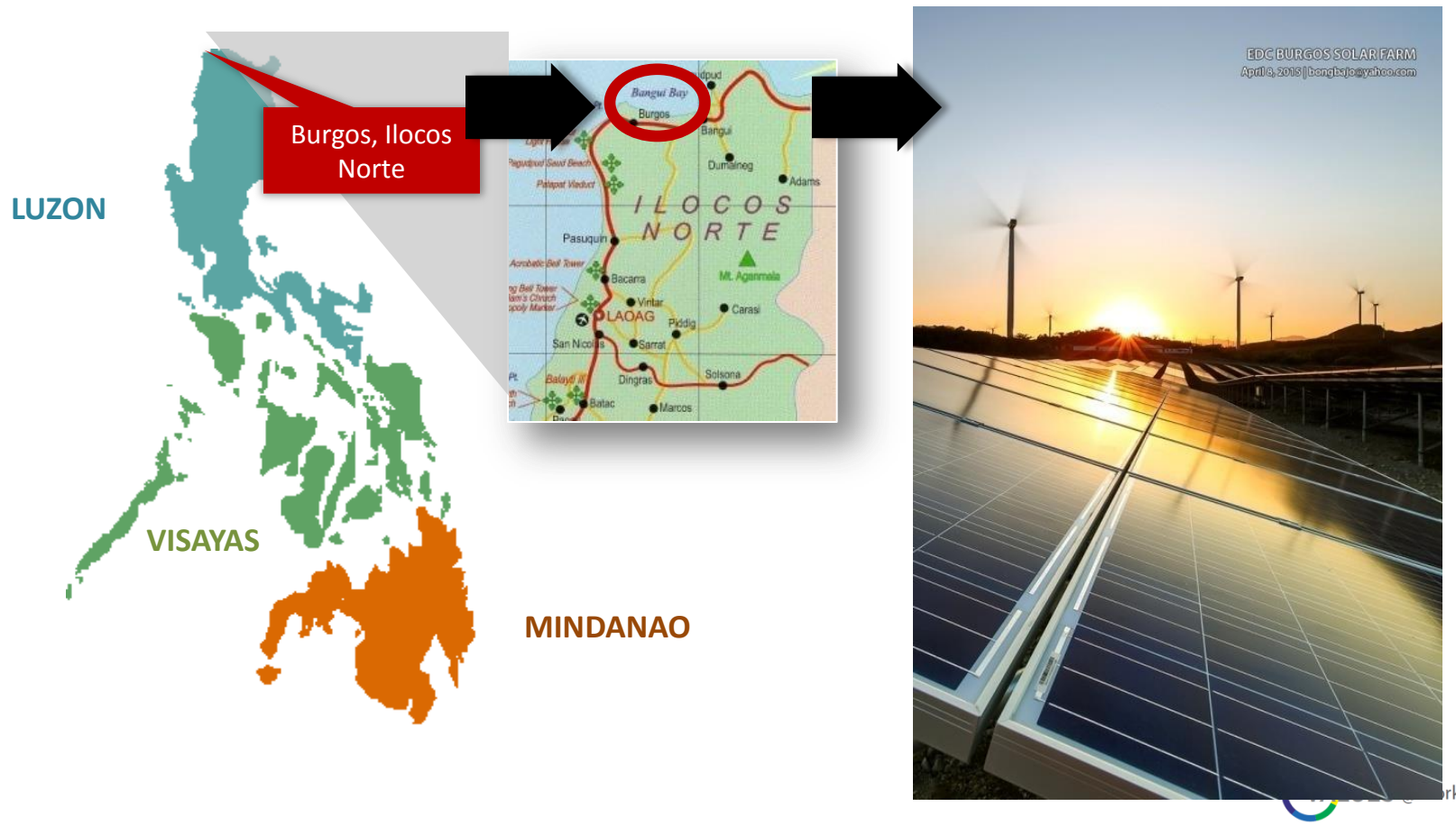
- Developed within 972 hectare service contract defined in SESC 2014-07-088
- Connected to Ilocos Norte Electric Cooperation (INEC)
- Located adjacent to Wind Turbines in private land within Bgy. Saoit, Burgos, Ilocos Norte
- Commercial Operations Date: March 2015 & 2016 (expansion)
- Began FIT revenue collection amounting to Php 9.68 in August 2015 & Php 8.69 in March 2016 (expansion)



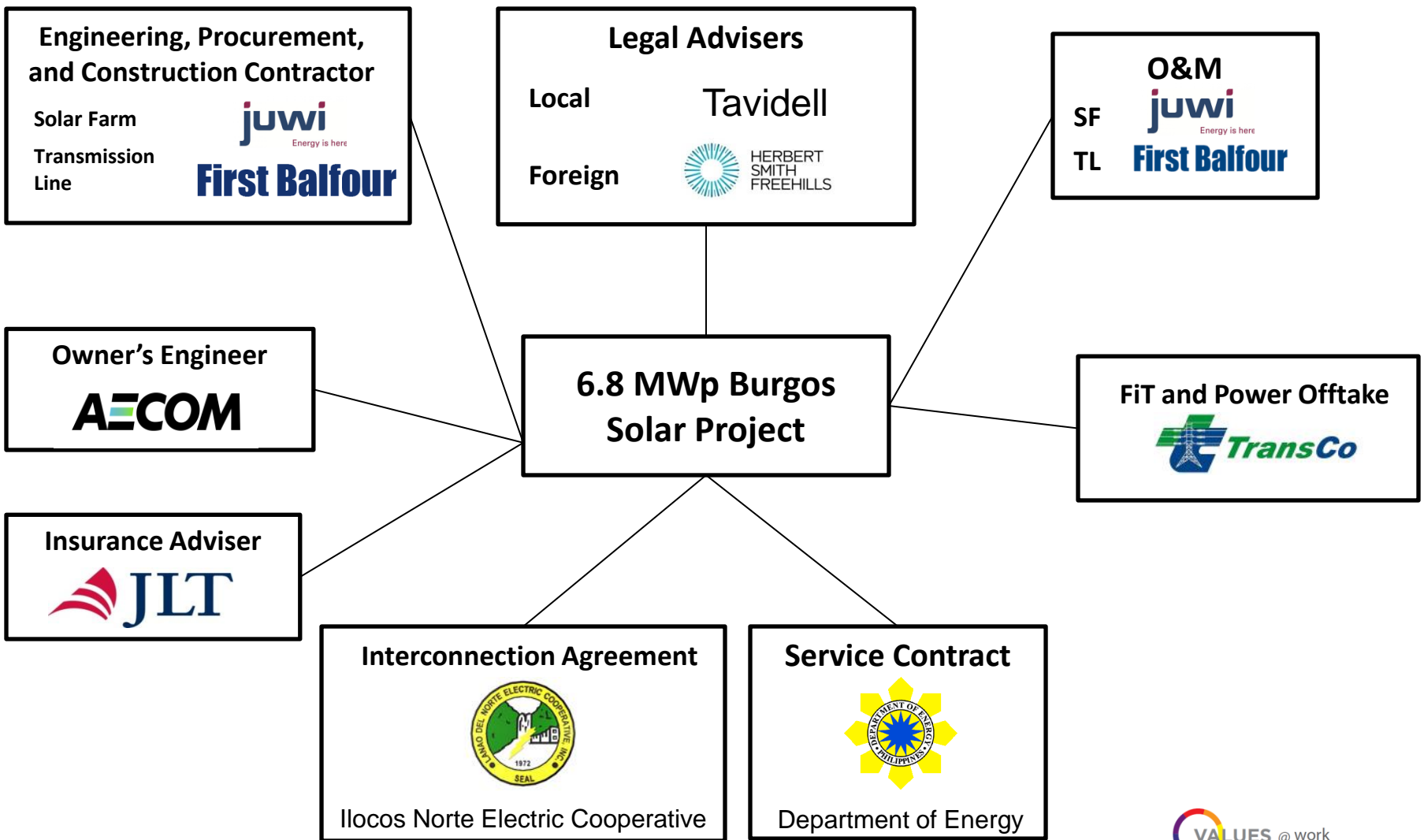


# THE PROJECT HARNESSES THE ABUNDANT SOLAR RESOURCES OF ILOCOS NORTE

## Ilocos Norte has one of the best solar conditions for solar power generation in the Philippines



# IN JANUARY 2016, WE COMPLETED PHASE 1 AND 2 OF THE BURGOS SOLAR PROJECT, ACHIEVING FIT ELIGIBILITY STATUS





**END OF PRESENTATION**