

Large Scale Solar (LSS) Plant Gading Kencana, 30MWac Bidor, Perak

**ASEAN SMART GRID CONGRESS
DIALOGUE**

**ACHIEVING SUSTAINABLE DEVELOPMENT GOAL AND CLIMAT ACTION: RE
THROUGH SMART GRID-THE ACADEMIA-INDUSTRY SYNERGY.**

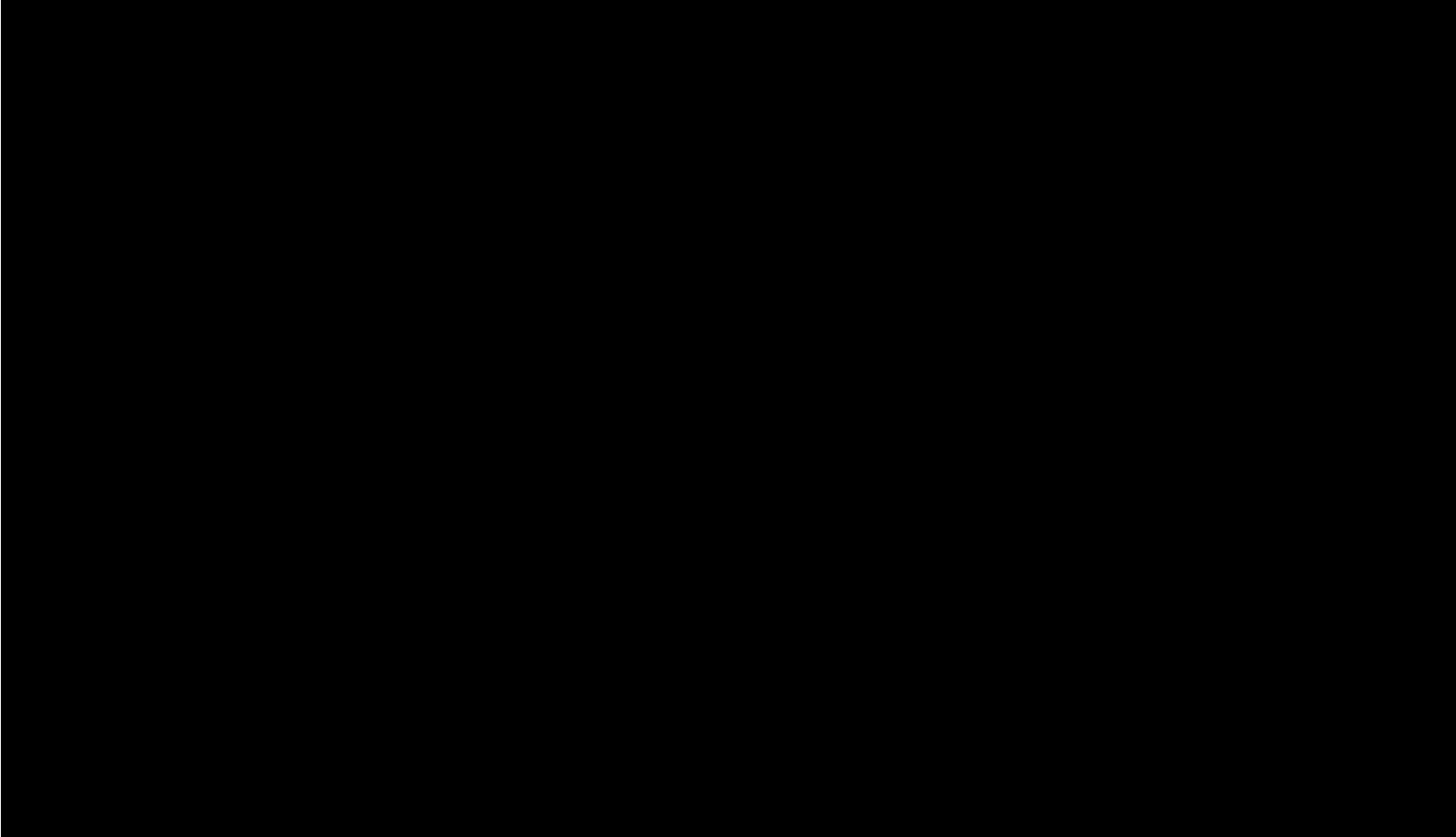
2019.12.04

AWARDS & CERTIFICATION

- RE & EE Company
- Certified Approved PV Service Provider (APVSP) by SEDA
- **Amongst other award:**
 - APVIA (Asia PV Industry Award) 2019
 - IEM Award (Power & Energy) 2019
 - ASEAN Energy Award (2018)
 - National Energy Award (2018)
 - Ernst & Young - Entrepreneur of the Year Award (2016 & 2017)
 - Anugerah Tokoh Usahawan MARA 2017
 - Frost & Sullivan (2016)
 - European PV Magazine Award (2015)



ELECTRICITY PRODUCTION PROCESS FROM A SOLAR FARM



CURRENT SOLAR FARMS IN OPERATION

NO	CLIENT	PROJECT SCOPE	CAPACITY (MW)
1	TNB	8MW ELECTRICITY SUPPLY UNDER FEED-IN-TARIFF (FIT) (2014-2035)	8
2	TNB	30MWAC ELECTRICITY SUPPLY UNDER LARGE SCALE SOLAR FARM (2018-2039)	30
TOTAL			38



PROJECT HIGHLIGHTS



Details	2012	2017
Solar System Capacity	8 MW	37.5 MW
Solar Modules Used	29,092 Pcs	110,500 Pcs (Made in Malaysia)
Solar Inverters Used	390 Nos	14 Nos
Cables	DC 6mm: 24 km AC Inverter to Feeder Pillar 5 Core 10mm: 26 km AC Feeder Pillar to MSB: 25km AC Switchgear to PPU 4 core 185mm: 4km	DC 6mm: 400 km DC 300mm: 35 km AC Inverter to Switchgear 4 core 240mm: 4 km AC Switchgear to SSU ABC cable 240mm 2 circuit: 6 km
Manpower	230 pax	304 pax
Electricity Generated Per Year	11,517.75 MWh – DAA	53,651 MWh - DAQ
Land Size	17.7 Acres	98 Acres
Total Project Value	RM84 Million	RM214 Million
Registered Address	Kompleks Hijau Solar, Jalan Solar 1, Bandar Hijau, Hang Tuah Jaya, 75450 Ayer Keroh, Melaka	Lot 12191 and Lot 12192, Mukim Bidor, Daerah Batang Padang, Perak Darul Ridzuan

ECONOMIC IMPACTS



No	Economic Impact	Melaka 8MW	Bidor 30MWac
1	Total Investment	RM84.0	RM 214.2 Mil
2	CO2 Reduction (21 years)	203 Mil Tonnes	760 Mil Tonnes
3	Replication capacity	8MW/Year	50MW/ Year
4	Potential export business	8MW/Year	50MW/ Year
5	Human capital development : • New Job Creation • Training of installer • Vendor development	230 jobs 20 person/year 10/year	304 jobs 100 person/year 30/year
6	Income to state government	RM4Million	RM14Million
7	Collaboration with	- MPHTJ - PTHM - NCIA - MIDA - HRD	- PEKA - PHCDC - HRD - NCIA - MIDA
8	Government Revenue GST Corporate taxation	- RM10 Mill - RM 4 Mill	- RM27 Million - RM12 Million



EMPLOYMENT OPPORTUNITIES



DESIGNATION	NO
PLANT MANAGER	1
ENGINEER	40
INSTALLERS	180
TECHNICIAN	60
GENERAL WORKER	20
ADMINISTRATION & EVENT	3
TOTAL	304

SPIN-OFF BUSINESS OPPORTUNITY



CHALLENGES FACED IN THE PROJECT



- **FINANCIAL**

Local financial institutions have limited capital and low experience in lending to RE projects.



BANK NEGARA MALAYSIA
CENTRAL BANK OF MALAYSIA

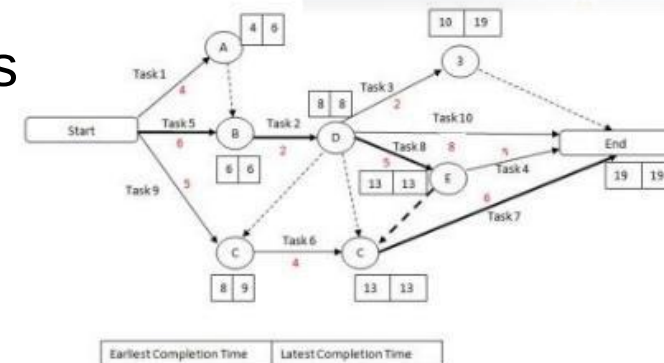
- **RISK PERCEPTION**

Risk perceptions related to new technologies –reluctance to finance RE projects.



- **TIME IS OF ESSENCE**

Timely approvals from various authorities and critical to meet timeline of Power Purchase Agreement (PPA).



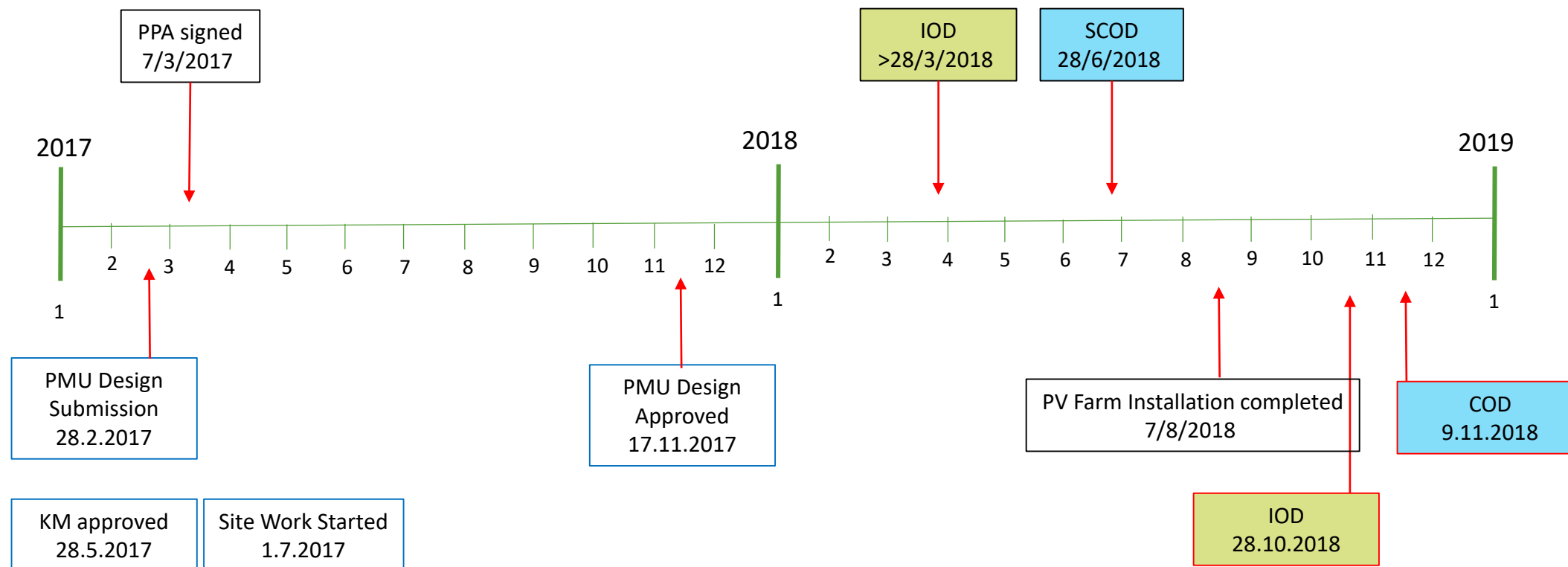
LSS Bidor, 30 MWac Solar PV Power Plant



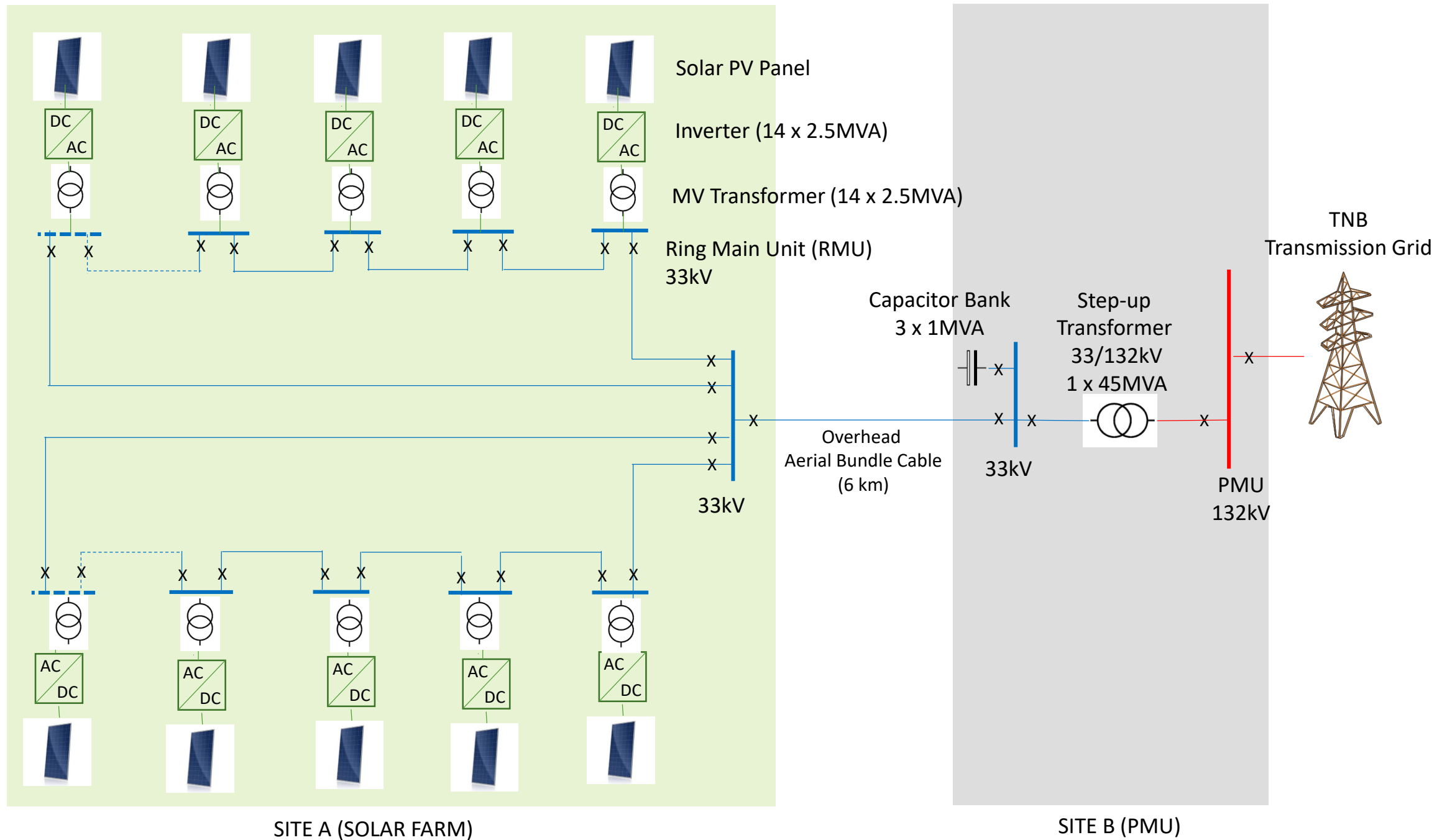
Project Timeline

Schedule

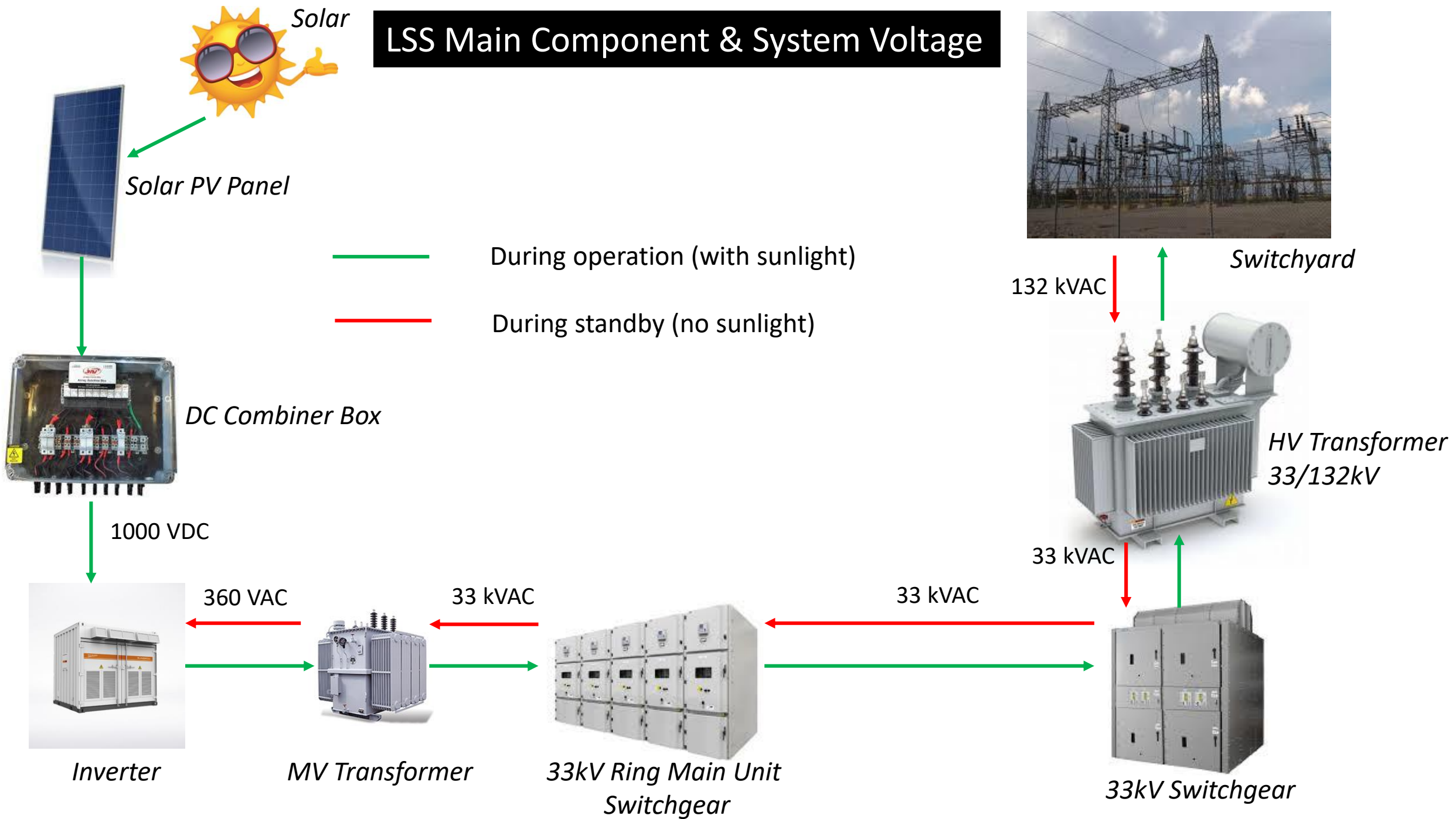
Actual



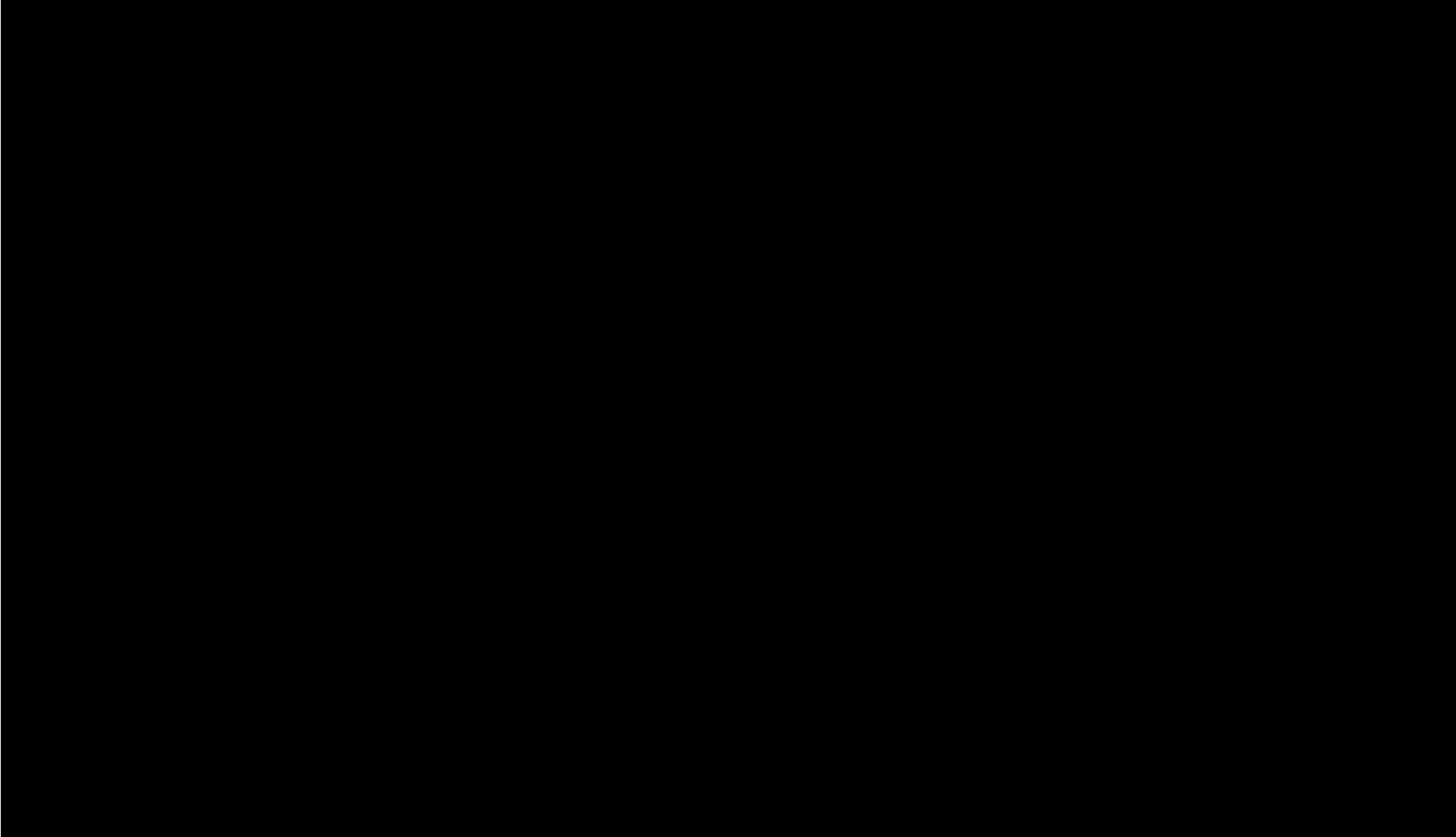
Note: IOD – Initial Operation Date
COD – Commercial Operation Date



LSS Main Component & System Voltage



CONSTRUCTION OF 30MW SOLAR FARM BIDOR





Gading Kencana



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