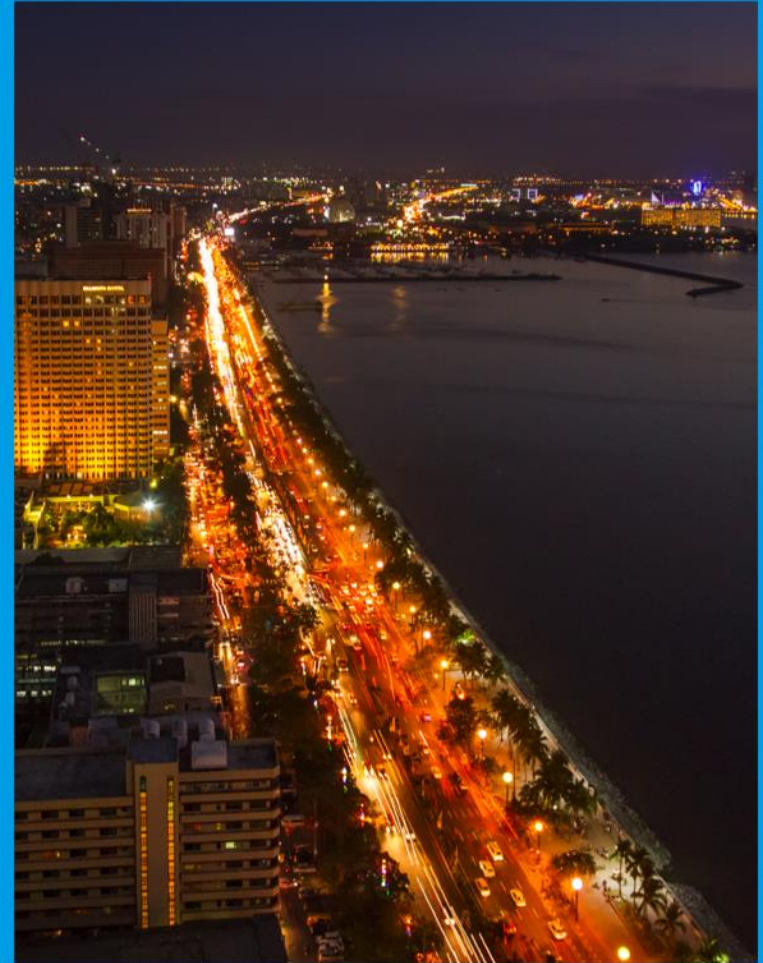


Mindanao Energy Investment Forum

Organized by the Department of Energy

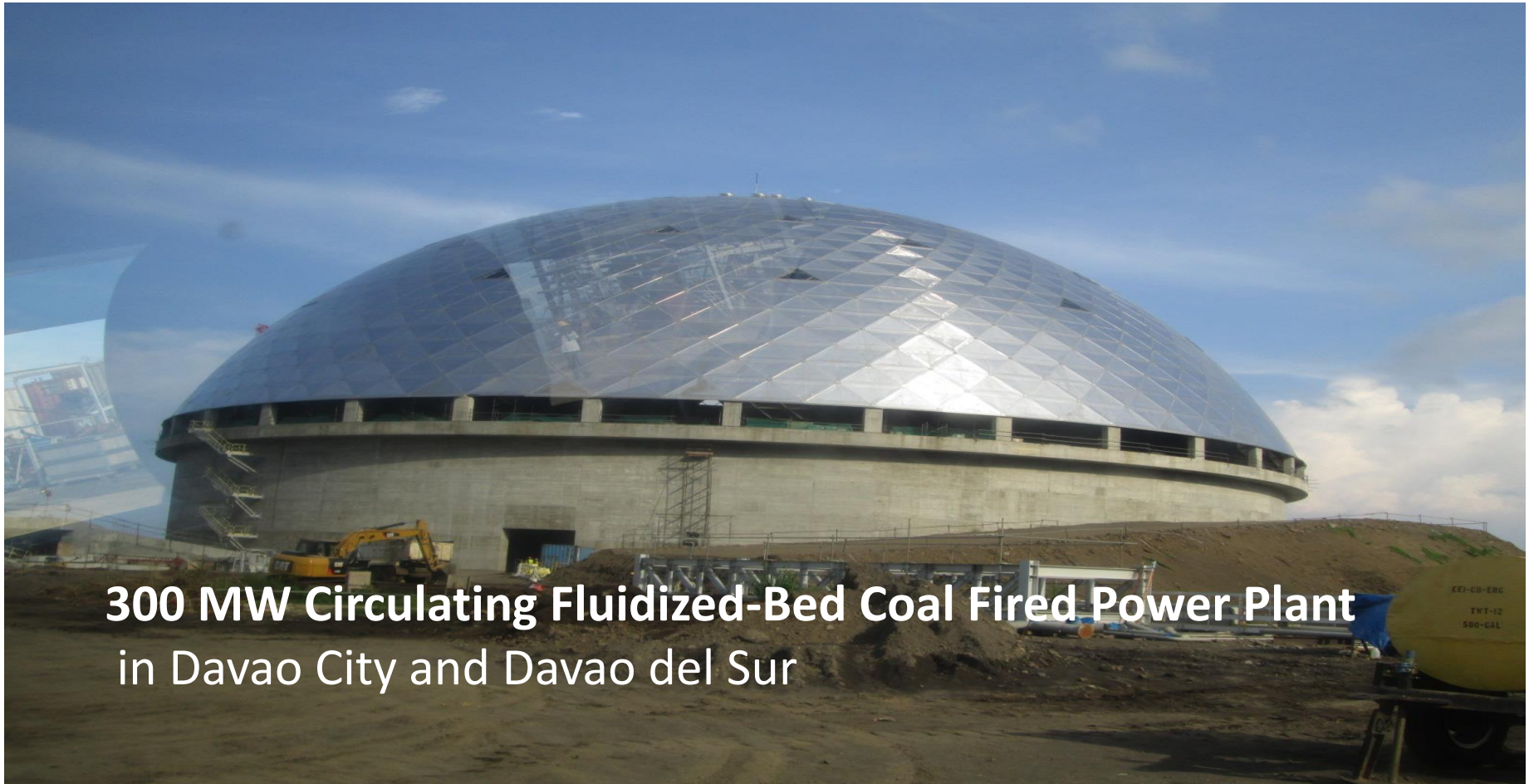
THE THERMA SOUTH EXPERIENCE
In Developing and Implementing an Energy Project in Mindanao



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Project



300 MW Circulating Fluidized-Bed Coal Fired Power Plant
in Davao City and Davao del Sur



Experience

**in securing the 7 key
requirements to
construct and operate
the plant**



1. Endorsement by the LGUs of Davao City and Sta Cruz

Davao City – more than 3 months February 22, 2011 to June 7, 2011

Sta. Cruz – more than a month February 22, 2011 to March 30, 2011



2. Zoning reclassification of Davao City

More than 6 months - June 1, 2011 to
December 12, 2011



3. Securing land use conversion from agricultural to industrial from DAR



8 months - October 2011 to May 2012



4. Issuance of Environmental Clearance Certificate by DENR/EMB

More than 3 months – May 2011
to September 2011



5. Issuance of conditional water permit by the NWRB



For springs 1 and 2
more than 6 months -
March 2012 to Sept
2012

For sea water more
than 5 months – Sept.
2013 to Feb 2014



6. Securing approval of foreshore lease agreement from DENR

2 years and 6 months -
November 2011 to April 2014



7. Securing sales contract from customers for the 260 MW net marketable capacity of the plant

One year, September 2013 to September 2014, to fully contract 260 MW to

- 19 electric cooperatives
- 3 private distribution utilities



7. Securing sales contract for the net marketable capacity of plant of 260 MW

Agusan del Sur Electric Cooperative (ASELCO)	10
Agusan del Norte Electric Cooperative (ANECO)	1
Bukidnon Second Electric Coop (BUSECO)	2
Cagayan de Oro Power & Light Company (CEPALCO)	30
Cotabato Electric Cooperative (COTELCO-Main)	10
Cotabato Electric Cooperative (COTELCO-PPALMA)	4
Cotabato Light & Power Company (CLPC)	5
Davao del Norte Electric Cooperative (DANEKO)	17
Davao del Sur Electric Cooperative (DASURECO)	10
Davao Light & Power Company (DLPC)	100
Davao Oriental Electric Cooperative (DORECO)	5
Iligan Light & Power Incorporated (ILPI)	
Misamis Occidental 1 Electric Coop (MOELCO-1)	
Misamis Oriental Electric Cooperative	
South Cotabato I Electric Coop	2
South Cotabato II Electric Coop (SC2)	5
Sultan Kudarat Electric Cooperative	8
Surigao del Norte Electric Cooperative (SURNECO)	5
Surigao del Sur Electric Coop I (SURSECO I)	3
Surigao del Sur Electric Coop II (SURSECO II)	5
Zamboanga del Norte Electric Coop (ZANECO)	10
Zamboanga del Sur 1 Electric Coop (ZAMSURECO 1)	10
Zamboanga del Sur 2 Electric Coop (ZAMSURECO II)	5
TOTAL	260

Total: 260 MW out of 260 MW

* 40 MW is for internal use or "houseload"

CONTRACTED: 260 MW out of 260 MW

Challenges we addressed

...that could derail the social acceptability and construction of the project



1. Issues on the effect of the construction and operation of the plant to the quality of water supply and aquifers



To resolve the issue the Davao City Council Committees on Energy and Environment commissioned a Body...



1. Issues on the effect of the construction and operation of the plant to the quality of water supply and aquifers

...composed of hydrologists— our own and one appointed by the committees - and civil society representatives to evaluate TSI's Study that

... we will use only surface water for the steam requirements of the plant and that water from springs within the plant vicinity can meet our requirements for the long term

The Body and the City Council approved our Study



2. Concerns raised mainly by civil society groups and academe about the perceived harmful effects of a coal plant

We actively participated in forums and dialogues organized by third parties to educate and assure them

that we will **use** modern and proven technologies...



2. Concerns raised mainly by civil society groups and academe about the perceived harmful effects of the emissions of a coal plant

...to ensure that the construction and operations of the plant will be compliant with stringent local, national, and international environmental and health standards



3. Media's influence



3. Media's influence

We were concerned about media's influence in shaping public opinion and implemented measures to ensure they understood the fundamental and compelling reasons why we are building the plant, i.e.

- The power crisis in Mindanao cannot be solved by building only renewable power plants because renewable energy can be produced on a limited scale and would not be enough to fill the shortfall



3. Media's influence

- What Mindanao badly need are base load power plants capable of operating 24/7 like a coal power plant
- The generation rate for our coal power that we are offering of P5.59 per kwh is lower than the feed-in tariff for hydro, wind, biomass, and solar power



3. Media's influence

- AP is one of the largest private producers of renewable power in the country and that we are moving aggressively to further increase our renewable power portfolio

...which presently make up 38 percent of our nationwide generation capacity



3. Media's influence

- The right mix of renewable and non-renewable power is the best and most practical strategy to solve the power crisis in Mindanao
This means building as many renewable power plants as we can provided the effect on electricity rates would not be prohibitive for consumers

But face up to the reality that since renewable power will not be enough to fill Mindanao's power requirements, draw the balance from non-renewable power sources like coal

...provided they cause the least adverse effect to the environment



4. Commitment to the people of our host communities



4. Commitment to the people of our host communities

We made sure that we are able to make good on our commitment to the people of our 2 host barangays that we will give preference to local qualified applicants when hiring workers

Our ability to deliver on this commitment will be crucial to our being able to earn their trust and to our being accepted



4. Commitment to the people of our host communities

- We partnered with TESDA to conduct training programs for interested local applicants on skills that we are hiring
- We assisted qualified applicants in complying with pre-employment requirements
- We periodically apprised local officials about the status of our local hires to show we are maximizing the hiring of local applicants for jobs where they possess the requisite training and skills



Hires from host communities of Binugao and Inawayan, Mindanao, and Overall

		Host Communities			Other Davao Provinces								Other Davao Provinces + Host Communities	Over-all Total Project Hires	% of hires from Binugao & Inawayan ----- over-all total project hires	% of hires from Other Davao Provinces + Host Communities
		Binugao	Inawayan	Sub-total Binugao & Inawayan	Sta. Cruz	Toril	Davao City	Digos City	Davao del Sur	Davao Oriental	Davao del Norte	Sub-total Other Davao Provinces				
3rd Q, 2014	Aug-14	309	421	730	277	376	821	22	44	4	77	1,621	2,351	4,031	18%	58%
	Jul-14	361	375	736	278	610	783	22	45	12	84	1,834	2,570	4,523	16%	57%
2nd Q, 2014	Jun-14	335	388	723	273	638	782	19	46	16	82	1,856	2,579	4,473	16%	58%
	May-14	353	394	747	277	653	752	20	47	16	86	1,851	2,598	4,467	17%	75%
	Apr-14	308	352	660	220	473	648	21	44	12	58	1,476	2,136	3,553	19%	61%
1st Q, 2014	Mar-14	331	371	702	226	527	585	22	52	14	52	1,478	2,180	3,587	20%	61%
	Feb-14	310	360	670	236	431	568	20	52	14	50	1,371	2,041	3,362	20%	63%
	Jan-14	313	367	680	228	412	711	22	53	12	47	1,485	2,165	3,543	19%	61%
4th Q, 2013	Dec-13	283	366	649	205	398	552	13	28	40	53	1,289	1,938	3,073	21%	71%
	Nov-13	300	349	649	180	379	508	14	21	40	50	1,192	1,841	2,800	23%	66%
	Oct-13	268	328	596	150	326	382	11	19	38	40	966	1,562	2,189	27%	71%
3rd Q, 2013	Sep-13	260	329	589	150	289	371	11	19	38	40	918	1,507	2,070	28%	73%
	Aug-13	228	269	497	145	238	325	8	14	6	25	761	1,258	1,653	30%	76%
	Jul-13	213	199	412	155	176	318	6	12	5	21	693	1,105	1,535	27%	72%

Summary as of August 2014

- Hires from host communities – 730 or 18%
- Hires from Mindanao - 2,351 or 58%
- Hires overall - 4,031 or 100%



5. *Securing sales contracts*



5. Securing sales contracts

AP took a big risk in self-financing the construction of the power plant without securing prior sales contracts from prospective customers

However, recognizing that time is of the essence because of the worsening power supply situation in Mindanao, AP decided to go ahead and build the plant in 2010



5. Securing sales contracts

- The biggest challenge our marketing people faced during their campaign to secure sales contracts is the comparatively lower rates of NPC since its rates are subsidized
- Since under the law NPC can no longer build new power plants or expand their present generation capacity, it will not be able to supply all their power requirements
- TSI is fully capable of supplying them with reliable power at competitive rates for the long term



Suggested Way Forward



Suggested Way Forward

We are happy that we were able to secure the key requirements in time to enable us to fulfill AP's goal of making a significant contribution in alleviating the power shortage in Mindanao by 2015

Most government personnel who processed our application were responsive and cooperative



Suggested Way Forward

There is a need to streamline some of the processes to make it more investor-friendly

For example, combining processes, allowing more processes to be done simultaneously instead of one-after-the-other, and prescribing strict timelines for how long each process should take



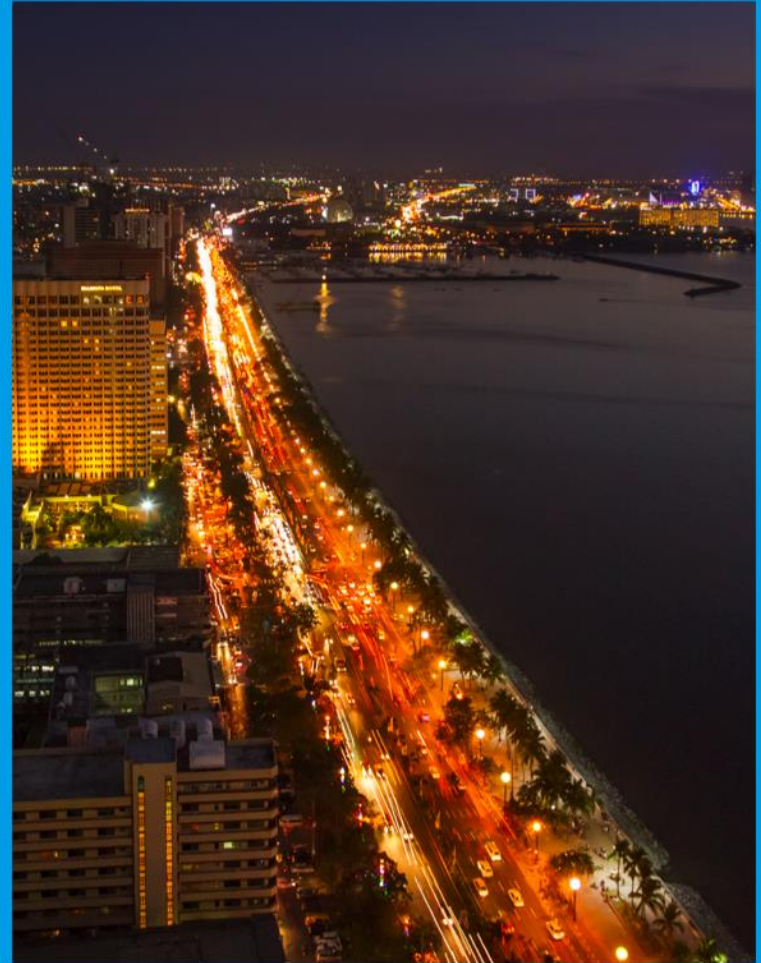
Suggested Way Forward

We suggest to devolve to local offices of relevant government agencies and capacitate them to handle the function of processing applications for energy projects

More importantly, there is a need to foster an authentic attitude and mindset on the part of government personnel to be glad to welcome energy projects and to make things easy for applicants



Is there a better way?



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