

# **CRESCO**

PROJECT FINANCE

## ***Small scale Hydro Electric Power IPP compliance with legislation and REBID process***

***“Your project development partner, delivering value through a multi-skilled team”***

***29<sup>th</sup> May 2012***



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- **Enabling legislation**
  - **Electricity Regulation Act**
    - **Overarching legislation**
    - **Section 34**
    - **New Generation Regulations**
  - **National Energy Regulator Act**
    - **Generation License**
  - **National Water Act**
    - **Water Use License**

## *Development of the Renewable Industry*

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- In November 2003 the DoE issued a White Paper on Renewable Energy
- During 2009 NERSA announced the South Africa Renewable Energy Feed-in Tariff (REFIT) programme
- NERSA also published Regulatory Guidelines, a draft Power Purchase Agreement (PPA) and Rules on Selection Criteria for Renewable Energy Projects under the REFIT programme for public comment
- December 2009, the DoE issued the Integrated Resource Plan 1
- DoE then issued a Request for Information in September 2010 to test the market appetite among REFIT project developers
- On 30 Nov 2010 the draft Electricity Regulations on New Generation Capacity were issued. These regulations were finally gazetted on 4 May 2011
- IRP 2010 gazetted on 6 May 2011
- During August 2011 REIPP procurement programme replaced REFIT

## ***IRP Overview:***

- Objective: determine the long-term electricity demand for South Africa and detail how this demand should be met in terms of generating capacity, type, timing and cost
- The document will be updated regularly
- Considerations:
  - Reduce carbon emissions
  - New technology uncertainties
  - Water usage
  - Localisation, Job Creation
  - Southern African integration
  - Security of Supply

# *Small Hydro in the Integrated Resource Plan for Electricity to 2030*

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## ***IRP Overview:***

- Outcomes:
  - 42% Renewable Energy generation by 2030

## ***IRP Hydro Overview:***

- Imported Hydro expected to come on-stream between 2022 and 2024; no build commitments yet, though
- Hydro expected to make up:
  - 4% of total generating capacity in 2020
  - 5.3% of total generating capacity in 2030
- Small Hydro are not specifically addressed in the current IRP planning beyond current commitments – they are listed for further research as a potential technology option.
- Currently covered under Renewable basket



## *Small Hydro in the DoE Renewables IPP Programme*

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### ***Programme Overview:***

- The DoE's IPP Programme is a competitive bidding programme
- Programme Structure: Up to 5 Bid Submission Windows, Nov 2011 to May 2014 (Window 2 was the latest, Window 3 in August 2012)
- 3725 MW total to be procured, of which 2459 MW has been allocated
- Grid Connections by June 2014 (Window 1), or end 2016 (Windows 2 to 5)
- Evaluation a mix of Tariff (70%) and Economic Development (30%)
- Window 1 Projects to achieve Financial Close in June 2012
- Eskom is required to purchase all power generated by IPPs
- Bidders must propose Fully-indexed and Partially-indexed tariffs; Fully-indexed tariffs must be below the published tariff caps
- Bidding is an admin-intensive process; projects must have their Environmental Authorisation in place (amongst other permits) before bidding
- Small projects programme to be launched within weeks



## ***Small Hydro Specifics:***

- Small Hydro Project Size: Maximum 10 MW
- Allocated MW to Small Hydro: 75 MW
- Current Tariff Cap in 2011 terms (Full Indexation): R 1,030 / MWh
- Small Hydro Preferred Bidders: 2 Projects (both Window 2), total 14.3 MW
  - Neusberg Hydro Electric
  - Stortemelk Hydro
- Small Hydro MW Currently Unallocated: 60.7 MW
- Sharing of Common upstream infrastructure is allowed, within specified rules
- Decommissioning Costs are an impediment

## Small Hydro in the DoE Renewables IPP Programme

### Window 2 Overview:

*79 Bidders, most were bid-compliant; 19 were selected*

Technology	Tariff Cap (MWh)	Average Window 2 Tariff (MWh)	Average Window 1 Tariff (MWh)	Window 2 Local Content %
Small Hydro	R 1,030	R 1,030	N/A	66.7%
Solar PV	R 2,850	R 1,645	R 2,758	47.5%
Wind	R 1,150	R 897	R 1,143	36.7%
Solar CSP	R 2,850	R 2,512	R 2,686	36.5%

## Small Hydro in the DoE Renewables IPP Programme

### ***MW Allocated:***

<b>Technology</b>	<b>Total MW Allocated</b>	<b>MW Awarded Window 1</b>	<b>MW Awarded Window 2</b>	<b>MW Remaining</b>	
Small Hydro	75	0	14.3	60.7	81%
Wind	1850	634	563	653	35%
Solar PV	1450	632	417	401	28%
Solar CSP	200	150	50	0	0%
Biomass	12.5	0	0	12.5	100%
Biogas	12.5	0	0	12.5	100%
Landfill Gas	25	0	0	25	100%

### ***Future opportunities:***

- Below 10MW capacity projects can participate in Round 3 of current REIPP programme
- Projects below 5MW but bigger than 1MW can participate in soon to be launched Small Projects Programme
- Larger projects can not currently bid. Might be accommodated in Base load IPP programme expected by year end
- Own use generation
- Wheeling to willing buyer

## Questions?



Opportunities in SSAfrica

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