

Wind Resource Assessment
and
its role in roadmap development

***What policies and kinds of assistance are required to accelerate
WRA?***

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Overview

Basic Stages of Wind Resource Assessment

- ***1st Stage WRA - preliminary area identification,***
- ***2nd Stage WRA - area wind resource evaluation,***
and
- ***3rd Stage WRA - micro-siting.***

What policies and kinds of assistance are required to accelerate WRA?

1st Stage WRA - preliminary area identification

- *This process screens a relatively large region for suitable wind resource areas based on publicly available wind data/information, such as, airport wind data, topography (flagged trees), **Wind Energy Resource Map Of The Country**.*
- At this stage, new wind measurement site (**'Contract Area '**) is selected.
- **Objective – obtain government award of RESC 'Contract Area' for wind power development**

'Kinds of Assistance' required to accelerate 1st Stage WRA

- *Update, and further validate, publicly available wind data to improve the reliability and accuracy of wind data, such as the "**Wind Energy Resource Atlas Of The Philippines**", for use in initially selecting sites for wind power development.*
- *Expedite government award of **RESC ('Contract Area')** to allow Developers to quickly initiate WRA of wind power development projects*

What policies and kinds of assistance are required to accelerate WRA?

2nd Stage WRA - area wind resource evaluation

- *This stage applies to Wind Measurement Program to characterize the wind resource in the **'Contract Area'** where wind power development is being considered.*
- *Objective - verify that sufficient wind resources exist within the **'Contract Area'***

'Kinds of Assistance' required to accelerate 2nd Stage WRA

- *Conduct training seminars on WRA to assist Developers in performing WRA in accordance with industry-accepted procedures. [Ref.: NREL's **Wind Resource Assessment Handbook, "Fundamentals for Conducting a Successful Monitoring Program"**]*
- *Make available low cost loans to Developers for financing pre-development WRA activities, or*
- *Institute cost-sharing (50/50) arrangement , ie, wherein the government provides a "grant/loan" covering 50% of the development cost, and the Developer finances the other 50% of development cost, with the proviso that the "grant/loan" need only be re-paid upon successful commercialization of the wind power project.*

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3rd Stage WRA – micro-siting

- *Micro-siting is the smallest scale of wind resource assessment.*
- *Objective - quantify the small-scale variability of the wind resource over the [**Contract Area**] terrain of interest.*
- *Ultimately, **micro-siting** establishes the location layout of wind turbines on the site to maximize the overall energy output of the wind farm.*

‘Kinds of Assistance’ required to accelerate 3rd Stage WRA

- *Assist Developers in selecting Consultant(s) who are experts in small-scale wind resource mapping techniques, such as, **“WAsP – Wind Analysis and Application Programme”***
- *Make available low cost loans to Developers for financing pre-development WRA activities, or*
- *Institute cost-sharing (50/50) arrangement , wherein the government provides a “grant/loan” covering 50% of the development cost, and the Developer finances the other 50% of development cost, with the proviso that the “grant/loan” need only be re-paid upon successful commercialization of the wind power project.*