

*Translate your knowledge into Success*

# Financial Modelling & Analysis of Renewables Project



**17-21 January 2022**  
**Singapore**

*Need more information?*

*Please call us on +65 9730 4250 or email [info@riverstonetraining.com.sg](mailto:info@riverstonetraining.com.sg)*

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The objective of this program is to provide knowledge and practical experience about the creation of comprehensive and complex renewables models of wind, solar, hydro, biomass, etc used in financial planning, structuring and fundraising purposes. The participants will gain insights into the step-by-step process of creating financial models, identify risk, put in checks & audits and analyzing the same.

The course equips you with a comprehension of the various concepts in the renewable energy sector. Our curriculum offers in-depth knowledge of the smart financial models prevalent in the renewable energy industry thereby enabling the participants to be actively involved in the renewables energy industry on the international level.

### Overview

The course will enable the participants to prepare detailed financial models for your projects in the field of renewable energy and helps them to identify all the cash flows, finance, and performance indicators. The course is designed to ensure that complex concepts are delivered to participants in a simple way. This will assist in their current role and business to analyze, invest and fundraising of renewables projects

### Who should attend

Anyone who wants to enhance their expertise in financial modeling for renewables should attend this course, which includes:

- Middle to senior managers in the renewable industry
- All professionals who want to deal or currently deal with the project financing of renewables projects
- Consultants, advisors and other professionals who wish to improve their modeling skills
- Middle to senior managers from investment banking, banks, financial institution,
- Finance directors, development directors, directors of strategy;
- Functional/department heads and decision-making professionals;
- Business owners, entrepreneurs, investors, and consultants;
- Any other professionals who want to upgrade their skills in the renewable energy field.

### Methodology

Non-theoretical methodology, which includes interactive discussions, case studies, interactive games, and assignments to understand the concepts and their applicability.

### Trainer

We carefully choose all our trainers who possess rich and vast experience in the renewables sector. The course will be conducted by an experienced training consultant having more than 18 years of industry experience with some of the world's leading financial institutions, specializing in investment and fundraising for wind, solar, hydro, biomass, waste-to-energy, geothermal etc projects.

**Financial Modelling & Analysis of Renewables Project**17-21 January 2022  
Singapore**Course Content****Module – 1****Financial Modelling for Renewables:****Introduction**

- Introduction to the renewable energy industry
- Importance of financial modeling
- Analysis of project information
- Steps for creating financial models
- Proper presentation of various sheets and setting up the model input dashboard

**Module – 2****Preparation of Layout and timing related information of Renewables Projects**

- Comparison of modeling process for solar, hydro, and wind projects
- Discussion on the best industry practices and standard for layouts and structure
- Preparation of the standard model template to ensure consistency between worksheets
- Develop quarterly and annual flags
- Other key flags like construction period, operational period, debt period, etc

**Module – 3****Key Drivers of Renewables projects**

- Resource assessment and capacity factor
- Development and construction cost
- Electricity pricing like PPA, Feed-In Tariff, merchant etc
- Regular O& M Costs
- Financing ratio, Operating costs, seasonality

**Module – 4****Formulating Pricing and Purchase****Agreements for Renewable Energy**

- Understand off-take, pre-paid, and power purchase agreements (PPAs) are.
- Building renewable energy certificates (RECs) and their impact
- How to combine merchant pricing and PPA in operational estimates

**Module – 5****Building Revenues for Renewables Projects**

- Calculation of fundamental revenue
- Finalize assumptions using resource data like irradiation, wind speeds, and hydro volumes
- Analyze the data of P99, P95, P90 etc
- Seasonality modifications in the revenue
- Building various PPA and merchant sales pricing

**Module – 6****Building Cost for Renewable Energy**

- Build operating and maintenance costs in renewable energy plants
- Analyze and build fixed and variable maintenance costs for solar, wind and hydro projects etc

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- Funding requirement for wind, solar, hydro, biomass etc
- Calculation of fund requirement and various resources of funding and source to service the same
- Calculation of Interest During Construction(IDC)
- Different ways to model the development and construction costs
- Schedule of amortization of intangible assets
- Tax and accounting depreciation, if any

**Module – 8****Building Financing for Renewable Energy**

- Various financing options available for renewable projects
- Modeling of debt financing and drawdowns
- Financing fees and interest during construction
- Review of refinancing in senior debt - construction debt to the term loan
- Repayment based on cashflows and various debt covenants
- Various types of repayment structure like an annuity, sculpted, bullet, etc

**Module – 9****Credit Spreads and Financial Return Analysis for Renewable Energy**

- Studying the concept of credit spreads and debt IRR.
- Calculation of implied default probability with various credit spreads and debt tenors
- Causes for formulating credit spreads

**Module – 10****Waterfall mechanism for Renewable Projects**

- Waterfall mechanism to calculate the debt requirement and cash flow available for debt service as per
- Repayment based on the project finance requirement like arranger fees, interest, annual fees, repayment etc
- Preparation of DSRA and other cash reserves in the waterfall mechanism
- Calculation of the cash flow available to equity shareholders
- Dividend calculation with its limitations including lender restriction etc

**Module – 11****Re-financing of the renewable projects Using various financing schemes**

- Re-financing of on-shore & offshore wind, geothermal, and hydropower projects
- How to evaluate the project for re-financing and points to consider
- Analysis of various project and financial parameters for re-financing

**Module – 12****Integration of income statement, balance sheet, and cash flow statement**

- Industry practices on handling exceptions
- Integration of Cash Flows, Income Statement and Balance Sheet as per best renewable industry practices



**Financial Modelling & Analysis of Renewables Project**17-21 January 2022  
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- Reviewing the risks in renewable power projects
- Studying risks by employing break-even, sensitivity, and scenario analyses
- Credit analysis in renewable financial projects
- How to take up adjustments based on the risk
- Stress testing on a model with P50, P90, and P99 data, delays, financing costs etc

**Module – 14****How to Analyze the Performance of Renewable Projects**

- Assessing the project using economic and financial analysis tools
- Calculation of LCOE of wind, solar and hydro projects etc
- Key Factors impacting the performance of the renewable projects of wind, solar and hydro facilities
- Loans covenant analysis like DSCR, LLCR, PLCR etc
- Calculation of Equity and Project IRR and the impact of critical variables on them
- to determine acceptable resource risk

**Module – 15****How to do model review and control**

- How to insert various test and checks in the model
- Identify common model errors and fix them
- Best industry practices

**Module – 16****Valuation of Renewable Energy projects**

- Determine the cost of equity and various risk impacting the same
- Determining the cashflows for valuations
- Analyzing the capital structure of the projects and its impact on valuation
- Discussion of multiple methods of valuation and framework for choosing the most appropriate method for renewables projects
- Discussion on the mechanical complications in the formulation of financial models
- Studying the modeling difficulties of financial models for renewable energy

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### DELEGATE REGISTRATION FORM

#### Course fees

(Fees per participant)	Single	Group**
Normal fees	SGD 3900	SGD 3700
Early bird price*	SGD 3600	SGD 3400

\*Payment 30 days before commencement of course

\*\*Minimum of 3 participants

For every 5 registrations, 1 registration is free (i.e. 6 participants can attend the training at the fee of 5 participants)

The course fee includes

- 5 days of dedicated expert training
- Lunch and refreshments
- Copies of important course material

#### Venue Details

- All our training sessions are held in good locations, assuring high level of comfort and a conducive learning environment.
- Due to variation in number of participants, final venue details will be mailed 14 days before the course commences.
- Registration : 9:00 am
- Session timings : 9:30 am to 5:00 pm
- **Disclaimer:** Riverstone Training reserves the right to change the venue or postpone the course due to unforeseen circumstances.

#### Company Information

Company Name : \_\_\_\_\_  
 Address : \_\_\_\_\_  
 Contact person : \_\_\_\_\_  
 Designation : \_\_\_\_\_  
 Email : \_\_\_\_\_  
 Phone : \_\_\_\_\_

#### Delegate Information

Name (1) : \_\_\_\_\_  
 Designation : \_\_\_\_\_  
 Email : \_\_\_\_\_  
 Phone : \_\_\_\_\_  
 Name (2) : \_\_\_\_\_  
 Designation : \_\_\_\_\_  
 Email : \_\_\_\_\_  
 Phone : \_\_\_\_\_

#### Payment Terms

- Full payment is required for seat confirmation.
- Make a crossed cheque or bank draft payable to **Riverstone Training Pte Ltd.**
- Mail your payment with this registration form to **Level 20, Tower 2, One Raffles Place, Singapore 048616.**
- Alternatively, you can do a bank transfer to OCBC Bank account no **686679846001** (Branch no: **7339**).

#### Cancellation Policy

- If you are unable to attend, a replacement delegate is always welcome.
- Any cancellation must be made in writing to Riverstone Training at least 14 days before the event date. A full refund, less an administration fee of SGD 150, will be given.
- For written cancellations received less than 14 days before the event date, no refunds will be given. However, you will receive a 100% credit voucher that can be applied towards any of our subsequent training courses within 6 months of the initial registration.

#### Need in-house training on the same topic?

For in-house training on the same course or customized course, please contact us through

Email : [register@riverstonetraining.com.sg](mailto:register@riverstonetraining.com.sg)  
 Or  
 Phone : +65 9730 4250