



# **Financial Modelling & Analysis of Renewables Project**

**11 – 15 December 2023**  
**Kuala Lumpur**

**Need more information?**  
**Please call or whatsapp 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 live teaching, interactive discussions, case studies, and assignments to understand the concepts and their applicability. Our Online Live Training is conducted using the latest technology to ensure that all the training programs are very engaging with a high level of interactions among the participants and trainer. We will ensure that your experience is similar to classroom training, where you can ask the questions and interact with participants & trainer at your convenience.

We request you to have your laptop with Microsoft Excel installed and also activate webcam and mics

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for a unique experience. Once you register, we will send you the training information with the links to log in for the training.

As a policy, we limit the class size to 10 participants so that we can provide attention to each participant and ensure their objective is achieved.

**Trainer**

This course will be conducted by an experienced training consultant having more than 20 years of industry experience with some of the world's leading financial institutions, specializing in corporate finance, investment banking, and private equity.

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**Kuala Lumpur****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

**Module – 7****Model CAPEX for Renewable Energy**

- Funding requirement for wind, solar, hydro, biomass etc
- Calculation of fund requirement and various resources of funding and source

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- 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

- 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 – 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

**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

**Module – 13****Risk and sensitivity analysis of Renewable Energy**

- Reviewing the risks in renewable power projects
- Studying risks by employing break-even, sensitivity, and scenario analyses
- Credit analysis in renewable financial projects



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- How to take up adjustments based on the risk
- Stress testing on a model with P50, P90, and P99 data, delays, financing costs etc

- Discussion on the mechanical complications in the formulation of financial models
- Studying the modeling difficulties of financial models for renewable energy

**Module – 14****How to Analyse 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

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**DELEGATE REGISTRATION FORM**

**Course fees**

<i>(Fees per participant)</i>	<b>Single</b>	<b>Group**</b>
Normal fees	SGD 3900	SGD 3700
Early bird price*	SGD 3600	SGD 3400

\*Payment 30 days before commencement of course

\*\*Minimum of 3 participants

The course fee includes

- 5 days of dedicated expert training
- Copies of relevant course material
- Free meal voucher for participants

**Venue Details**

- All our training sessions are held using the latest technology, assuring a high level of interaction and a conducive learning environment.
- Due to variation in a number of participants, final login details will be mailed 7 days before the course commences.
- Registration : 8:30 am
- Session timings : 9:00 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 SG 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 atleast 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.

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

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 or  
 Phone : +65 9730 4250