



- Plans
- Success Stories
- Solutions
- Media
- About
- Contact
- Login
- in
- 🐦

## WIN MORE BUSINESS. INCREASE MARGINS. KEEP CLIENTS HAPPY

GET STARTED FREE >

The Transcend Design Generator allows users to generate high quality engineering designs at the push of a button.

### Automatically Create Accurate Engineering Documentation

Transcend Design Generator (TDG) allows users to create custom preliminary designs for wastewater treatment facilities from just a few key project-specific inputs

Reasons to use Transcend Design Generator:

- You can't bid on as many projects as you want to
- Your clients want results faster, with more detail, at lower cost
- You spend too much time on the first 20-30% of the design
- You want to offer clients more design alternatives and options

SOUND TOO GOOD TO BE TRUE?  
START YOUR DESIGN NOW  
TO FIND OUT!

Email

GET STARTED FREE!

### WHAT OUR CLIENTS ARE SAYING

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Offline





**"HAVING EXTRA TIME TO MAKE THE HARD DECISIONS IS INVALUABLE."**

*— Senior Process Engineer, Large U.S. EPC Firm*

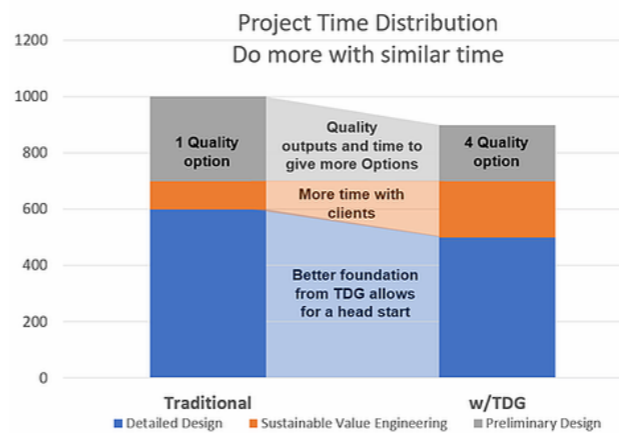
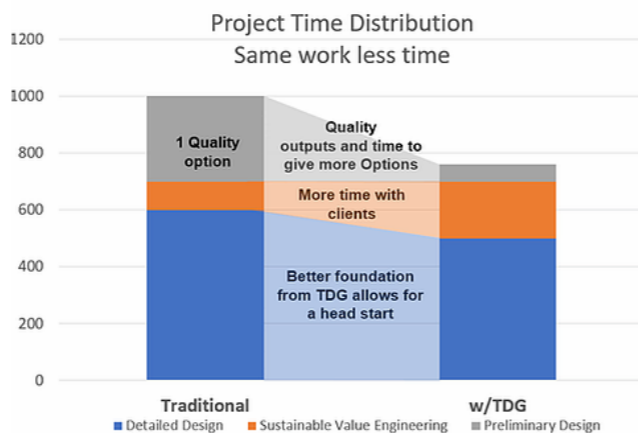
**EXPLORE OUR SUCCESS STORIES**



Email

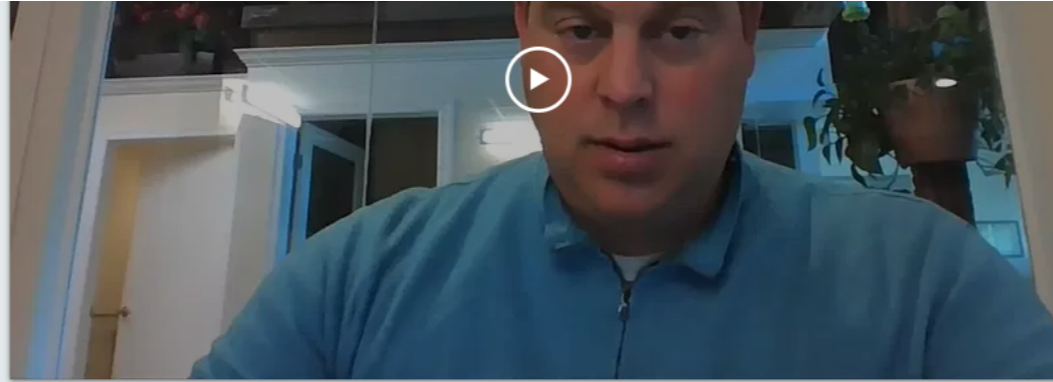
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## PROJECT TIME DISTRIBUTION



**LOOK AT SOME OF THE SAMPLE OUTPUTS BELOW**





**SIGN UP NOW!**

### 3RD PARTY SURVEY RESULTS OFFER FEEDBACK FROM WATER ENGINEERS




Source: Lux Research

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# WHY OUR CLIENTS LOVE US

Influent wastewater	
Parameter name*	mg/l
COD	600
BOD <sub>5</sub>	400
TSS	400
TKN	20
TP	7
NH <sub>4</sub> -N	-
T <sub>max</sub> (C°)	24
T <sub>min</sub> (C°)	30
FLOW DATA	
Q <sub>avg</sub> (m <sup>3</sup> /d)	9,300
Q <sub>max</sub> (m <sup>3</sup> /h)	840
Q <sub>max_daily</sub> (m <sup>3</sup> /d)	-


\* Parameters above have been provided by the Client. For additional assumed parameters please refer to the Design Basis Document




Increase employee satisfaction by reducing time spent on mundane tasks. Free up time for continuing education and solving complex problems.




Decrease non-billable and non-cost recoverable hours, and spend more time on profitable work.




Anyone can use the simple, intuitive interface and process. No coding skills necessary.



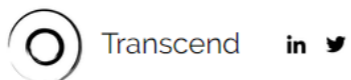
Reduce error by standardizing processes. Achieve global consistency and process quality control for all projects.



Adapt to client changes with an 8 hour turnaround. Deliver on increasing client demands and increase win rates.



Present multiple designs to clients who can now select the best design considering ALL costs - CAPEX, OPEX, land value, infrastructure, environmental, etc.



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# DESIGN GENERATOR SOFTWARE

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## THE CHALLENGE

Since the invention of ERP (Enterprise Resource Planning), we have seen software rapidly taking over a wide variety of day-to-day tasks that were previously performed manually. At the same time, engineering and construction firms and end users expect an **ever-increasing number of preliminary design iterations** for complex projects. And they expect them right away, not in weeks or months as it took in the past. Artificial intelligence and machine learning are making it exponentially easier to find errors and produce **higher quality outputs** in less time. We believe the water industry must adapt to these evolving trends **or it will be left behind**.

## OUR SOLUTION

The Transcend Design Generator software is **unique to the water sector** and infrastructure industry. Design Generator (DG) automatically integrates decisions and calculations from each engineering discipline (process, mechanical, civil, architectural, electrical, control, and automation) to create a **custom preliminary design** of a water facility including a dozen or more engineering documents and drawings. The software can produce designs for a variety of systems, including CAS, fixed film, and a handful of others. DG was developed by some of the **world's leading experts** in wastewater process modelling and architectural design and continuously updated and improved over the last decade.

DG offers Engineers, EPC professionals, Technology providers, Real Estate Developers, and Utility Companies preliminary designs for water facilities in just 8 hours, including a 365-day simulation with diurnal flow. This allows the user to take a **real time analytical approach** to choosing the best design, as

A blue button with a white smiley face icon, the text "Contact Us", and "Offline" below it, with a small white arrow pointing up on the right side.

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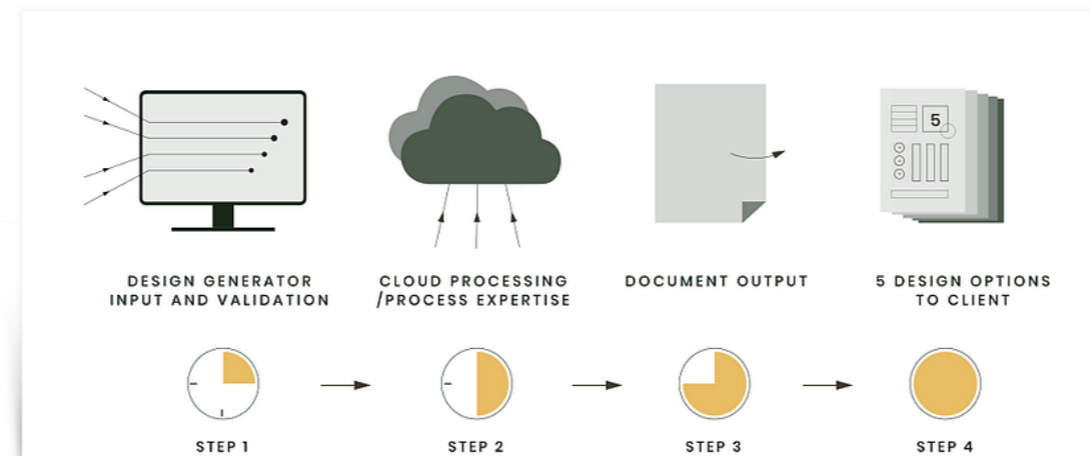
opposed to the traditional wait time of two weeks or more for each iteration. With a **user-friendly interface** and easy access website, clients have the ability to run and review unlimited scenarios with an 8-hour turnaround time and select the most suitable design for their requirements.

By giving the end user more options, it allows them to select the best solution at the beginning of the process, without having to burn thousands of engineering hours on creating iterations to find the best design. It also enables clients to bring new technologies and approaches to the market **faster**. In comparing them to conventional methods, we're giving the user the cost/benefit analysis of more **sustainable and environmentally friendly** approaches. The outputs are in native form used as the foundation for detailed design, reducing the man-hours and time requirement for the project cycle, and offering global consistency and quality control in all design documents.

## DESIGN GENERATOR PLATFORM

Design Generator ("DG") is a web-based, online water facility design engineering platform that enables engineering professionals to rapidly generate preliminary engineering designs for CAS facilities as well as MBR, MBBR, and others.

The tool has been developed by leading industry professionals and software development experts to create an easy-to-use, sophisticated wastewater engineering application.



(approx 1 hour)

(approx 3 hour)

(approx 4 hour)

(approx 8 hour)

During the design generation process, DG starts by leveraging proprietary databases and validation algorithms to check the input data for quality and consistency (garbage in – garbage out). Once the data is validated, it leverages hundreds of [thousands of decision-trees](#) developed by leading wastewater engineers, as well as a 365 day simulation in top of the line wastewater simulation software. This expertise helps to select the proper process unit and choose each piece of equipment for the facility. From there, DG constructs a [3D Building Information Model \(BIM\)](#) which can be used for final detailed engineering. The final output is a wide spectrum of engineering documents including:

### Process

- Process Flow Diagram
- Technical Description
- Design Basis Document

### Mechanical/Electrical

- P&ID w/ piping, valves and instrumentation
- Mechanical Equipment BOQ
- Instrumentation BOQ
- OPEX Calculation
- Electrical Load List

### Civil/Architecture

- Site Plan Drawing
- Floor-plan Drawings
- Sections Drawings
- Room Schedules
- Civil BOQ

## ADVANTAGES

### INCREASE SPEED

In today's world speed matters more than ever. Clients demand immediate results, and companies can produce them much faster than we imagined 1-2 years ago. The Transcend DG allows users to produce high quality preliminary engineering documents in hours instead of days or even weeks. In fact, some clients have told us the outputs they get from the Transcend DG normally take them 2,000+ hours to produce!

### SAVE MONEY

The Transcend DG saves clients' money by cutting down on engineering hours spent on preliminary design, including the ability to quickly adapt to changing client requirements or requests for iteration. The saved hours can then be allocated to more value-added tasks just as billable work or developing new and innovative approaches to end user needs.



### IMPROVED DECISION MAKING

Engineers prefer to spend time doing what they love - making challenging, difficult engineering decisions and analyzing various design options. The DG enables engineers to leave the boring, mundane tasks to the software... freeing them up to do value-added, complex work.

### STANDARDIZED QUALITY OUTPUTS

Because the designs are produced by software, the decisions and document outputs all leverage the SAME standards, enabling global consistency and strong process quality control in all final documentation. This eliminates much of the variation and quality flaws that usually find their way into construction level drawings and create problems during the build phase. DG outputs in their native form can also be used as the foundation for detailed designs, creating a standardized "starting point" for engineering firms and their clients.

### CONSTANT UPDATES

The Transcend DG was developed by some of the world's leading experts in wastewater process modeling and architectural design, and has been continuously updated and improved over the last 10 years. As new innovations become mainstream, we can quickly add them to the tool, thus giving users across the world access to these new approaches. As the quality and uptime of the system is ensured by Amazon Web Services, we can also be sure that any updates are immediate and secure.

Want more details? [Click here for a deeper dive.](#)



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