

Incentives for Early Barjeel Adopters

Issued Building Permits under Barjeel	Discount on the Final Building Permit Fee
First 5 building permits	100% discount
6 th to 10 th building permit	50% discount
11 th to 15 th building permit	25% discount
16 th building permit onwards	10% discount

The following terms & conditions apply:

- Incentives are only applicable to projects within the jurisdiction of the RAK Municipality
- The ranking of the building permit is based on the invoice date of the building permit. The percentage of discount for a specific building permit can only be confirmed once the invoice of the building permit is issued
- The voluntary phase starts from 29 Jan 2019 & will last for a period of one year. Projects must receive the building permit invoice within the voluntary phase to be eligible for the incentive scheme
- Initial building permit fees are excluded from the incentive scheme

Incentive Claim Process

- 01** • The consultant submits a building permit application in compliance with Barjeel
- 02** • The building permit application is approved by RAK Municipality
• The consultant assigns a contractor
• An invoice for final building permit fees (without the discount) is issued by RAK Municipality
- 03** • The consultant sends the invoice to barjeel@mun.rak.ae
- 04** • RAK Municipality confirms the ranking of the building permit
• An updated invoice (with the discount) is issued by RAK Municipality
- 05** • Upon payment, the building permit is issued by RAK Municipality

✉ For more information please send an email to barjeel@mun.rak.ae



barjeel

لائحة شروط المباني الخضراء لإمارة رأس الخيمة
Ras Al Khaimah Green Building Regulations

Barjeel, the Green Building Regulations of Ras Al Khaimah, sets minimum sustainability standards for all new buildings in Ras Al Khaimah.

A building in line with Barjeel standards will consume 30% less energy & water compared to a typical building in Ras Al Khaimah.

The one-year voluntary phase of Barjeel was launched on 29 January 2019. RAK Municipality encourages building owners & developers to apply Barjeel to new projects, & provides incentives to early adopters during the voluntary phase.



Requirements and Incentives

Adoption of Barjeel was approved by Resolution No. 6 of 2018 of the Executive Council of Ras Al Khaimah


Barjeel Requirements

Small & Simple Buildings (Fundamental) Large & Complex Buildings (Comprehensive)




Building Envelope Performance

- Average external wall u-value $\leq 0.48\text{W/m}^2\text{K}$ (private villa: 200mm thermal block) & average roof u-value $\leq 0.30\text{W/m}^2\text{K}$ ✓ 
- Glazing center pane u-value $\leq 1.8\text{W/m}^2\text{K}$ with thermally broken frame ✓ 





HVAC Design Parameters

- Cooling load calculations with the actual design heat transfer coefficient & in accordance with specified indoor & outdoor conditions ✓ 



HVAC Efficiency and Controls

- ESMA 2 star or equivalent ACs; chillers compliant with full & part load conditions of ASHRAE 90.1-2013 Effective 1/1/2010 ✓ 
- Independent HVAC control areas corresponding to the various regularly occupied areas ✓ 
- Energy recovery when treated outdoor air requirement is more than 1,000L/s (C only) ✓ 



Lighting Efficiency

- Internal & external lights to be LED or meet ESMA 3 star; [ESMA 4 star (C only)] requirements ✓ 
- Light switch or dimmer at the entrance of each room ✓ 
- Motion or occupancy sensor in corridors, staircases & public bathrooms for office, residential & government buildings (C only) ✓ 
- Exterior lighting with automatic lighting controls such as daylight sensors or programmable schedule controls (C only) ✓ 


Air Tightness

- Investment & government funded villas: air leakage testing with max. air leakage of $7.5\text{m}^3/\text{hr}/\text{m}^2$ at an applied pressure of 50Pa (sample testing for multiple identical villas) ✓ 
- Air leakage site inspection for buildings with more than 5,000m² BUA (C only) ✓ 



Energy Metering

- Building level energy meter & energy meters for each tenant unit ✗ 
- Energy sub-meters for government buildings & for hotels with more than 150 rooms ✓ 



Building Commissioning

- Third party commissioning for HVAC systems, renewable energy systems, electrical systems, domestic hot & cold water systems, on-site water treatment systems & BMS ✗ 


Efficient Water Fixtures & Fittings

- Option 1: Compliant flush & flow rates ✓ 
- Option 2: Water budget calculator ✓ 


Efficient Irrigation Systems

- Drip or subsoil irrigation (excluding lawns) ✗ 
- Hotels: irrigation by non-potable water if financially feasible ✓ 


Native or Adaptive Species

- Native or adaptive species on 30% of the softscape area for softscapes exceeding 1,000m² ✗ 

Condensate Recovery




- Condensate recovery from air conditioning equipment (Government buildings only) ✗ 

Water Metering




- Building level water meter & sub-metering for each tenant unit, swimming pool & softscaping exceeding 1,000m² ✗ 





Renewable Water Heating

- Option 1: Solar water heating for 75% of annual domestic hot water demand ✓ 
- Option 2: Heat pump for 75% of the annual domestic hot water demand ✓ 
- Option 3: PV installation on area equivalent to 30% of the net roof area ✓ 



Onsite PV Readiness

- Option 1: Solar ready zone equivalent to 30% of the net roof area ✓ 
- Option 2: PV installation equivalent to 30% of the net roof area ✓ 
- Option 3: Average external wall u-value $\leq 0.4\text{W/m}^2\text{K}$ ✓ 



EV Charging Station

- EV charging stations for buildings with more than 20 car parking spaces ✗ 
- Installation of EV charging stations (1 to 6) based on the number of car parking spaces ✓ 


Construction Waste Management

- Segregation of concrete, timber, metal, plastic & general construction waste ✓ 
- 25% of construction & demolition waste to be recycled or reused (C only) ✓ 

Operational Waste Management

- Space provision for compartmentalized or three separate bins in the kitchen & in public areas ✓ 
- Min. 5m distance between waste room & any restaurant or kitchen (C only) ✓ 


Organic Waste Management

- 4&5 star hotels, facilities with food courts: organic waste management equipment, if feasible ✗ 


Refrigerants

- CFC refrigerants & HCFC-22 refrigerant cannot be used ✗ 



VOC Limits

- VOC content limit of 30g/L for matt paints & 100g/L for glossy paints (interiors only) ✓ 


Outdoor Thermal Comfort

- Exterior surface parking, primary pedestrian walkways & playgrounds to be shaded (60%, 75% & 50% respectively) ✗ 

Urban Heat Island Reduction

- For 75% of the building roof: min. SRI of 78 for flat & low sloped roofs, 29 for steep roofs ✗ 
- 50% of the hardscape area to comply with min. SRI of 29 ✓ 

Minimum Indoor Air Quality

- Ventilation rates as per ASHRAE Standard 62.1-2013; filters & air cleansers with MERV of 6 ✗ 

Smoking & Non-Smoking Zones

- Compliance with the Federal Law No 15 (year 2009) ✗ 

 Individual Private Villas are subject to only a subset of the Fundamental Regulations as indicated in the table

(C only) Applicable only to the buildings under Comprehensive Regulations

This flyer is only informative in nature & neither substitutes nor fully represents the Barjeel requirements.

The full regulations can be found in the Rules & Regulations page of the Municipality website: www.rakmunicipality.rak.ae/en/pages/rules-regulations.aspx