🔐 IAM Permissions Summary Matrix

AWS Energy Data Insights Platform | Complete Permission Mapping

✓ **Required** - Essential for function operation ○ **Optional** - Enhances functionality — **Not Used** - Not required by this function

Total Lambda Functions	Unique Permissions	AWS Services Used	Most Permissive
5	**23**	**6**	**Chat Lambda**

Service / Action	Lambda Authorizer	Chat Lambda	Renewable Orchestrator	Tool Lambdas	Petrophysics Calculator
🔒 **Amazon Cognito**					
cognito-idp:DescribeUserPool	✓	—	—	—	—
cognito-idp:DescribeUserPoolClient	✓	—	—	—	—
🗄 **Amazon DynamoDB**					
dynamodb:PutItem	—	✓	✓	—	—
dynamodb:GetItem	—	✓	✓	—	—

Service / Action	Lambda Authorizer	Chat Lambda	Renewable Orchestrator	Tool Lambdas	Petrophysics Calculator
dynamodb:Query	—	✓	✓	—	—
dynamodb:UpdateItem	—	✓	✓	—	—
📦 **Amazon S3**					
s3:GetObject	—	✓	✓	✓	✓
s3:PutObject	—	✓	✓	✓	○
s3:ListBucket	—	—	✓	—	—
🧁 **Amazon Bedrock**					
bedrock:InvokeModel	—	✓	—	—	—
bedrock:InvokeModelWithResponseStream	—	○	—	—	—
⚡ **AWS Lambda**					
lambda:InvokeFunction	—	✓	✓	—	—
📊 **CloudWatch Logs**					
logs:CreateLogGroup	✓	✓	✓	✓	✓

Service / Action	Lambda Authorizer	Chat Lambda	Renewable Orchestrator	Tool Lambdas	Petrophysics Calculator
logs:CreateLogStream	✓	✓	✓	✓	✓
logs:PutLogEvents	✓	✓	✓	✓	✓

Lambda Authorizer

5

permissions (all required)

Chat Lambda

15

permissions (14 required, 1 optional)

Renewable Orchestrator

12

permissions (all required)

Tool Lambdas

5

permissions (all required)

Petrophysics Calculator

6

permissions (5 required, 1 optional)

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